

REMARKS/ARGUMENTS

The following remarks/arguments will adopt the section headings provide by Examiner Fischer in the April 28, 2004 Office Action.

Acknowledgements

As originally filed, the instant application contained 87 claims. By way of a Preliminary Amendment deposited with the U.S. Postal service as first class mail on June 18, 2002 and received in the USPTO OIPE on June 24, 2002, claims 1-68 were canceled and new claims 88-155 were added. A true and correct copy the Preliminary Amendment is attached hereto as Exhibit A.

On June 12, 2003, Applicants' counsel filed a Supplemental Preliminary Amendment with the USPTO by facsimile transmission. Confirmation of the USPTO's receipt of Supplemental Preliminary Amendment is indicated by "OK" in the RESULT box of the facsimile transmission report at the top of the cover page of the document. The Supplemental Preliminary Amendment amended certain ones of claims 88-155 and added new claim 156; see page 11 of the Supplemental Preliminary Amendment. A true and correct copy the Supplemental Preliminary Amendment is attached hereto as Exhibit B.

On June 13, 2003, Applicants' counsel filed a Second Supplemental Preliminary Amendment with the USPTO by facsimile

transmission. Confirmation of the USPTO's receipt of Second Supplemental Preliminary Amendment is indicated by "OK" in the RESULT box of the facsimile transmission report at the top of the cover page of the document. The Second Supplemental Preliminary Amendment amended claim 156, canceled claims 88-155 and added new claims 157-224. Thus, the status of the claims of the application following submission of the Second Supplemental Preliminary Amendment and prior to the first Office Action was as follows: claims 1-67 and 88-155 were canceled, and claims 69-87 and 156-224 were pending. A true and correct copy the Second Supplemental Preliminary Amendment is attached hereto as Exhibit C. Claims 69-87 have been withdrawn from consideration by virtue of an election pursuant to the restriction requirement made by the Examiner in the first Office Action, discussed below.

Restriction

Pursuant to 35 U.S.C. § 121 the Examiner has required restriction of claims 69-87 and 157-224 to one of several Groups of inventions. In particular the Examiner has identified two (2) Groups, namely, Group I, claims 69-87 (a method of determining a tax for a commodity and method of sales transactions) and Group II, claims 157-224 (assessing point of sale transactions).

Responsive thereto, Applicants hereby elect, without traverse, to prosecute Claim Group II including claims 157-224 and claim 156 which is properly categorized in Group II.

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Applicants reserve the option to file during the pendency of the present application a divisional application directed to the aspects of their invention covered by claims 69-87, Claim Group I.

Claim Rejections - 35 USC § 112, 2nd Paragraph

Claims 155-183 stand rejected under 35 U.S.C. § 112, 2nd paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Such rejection is respectfully traversed.

The Examiner notes that the scope of claim 155 is indefinite because the status of the claim is unknown. As indicated above, claim 155 was cancelled in the Second Supplemental Preliminary Amendment.

The Examiner states that "it is unclear which elements make up the 'compiling' steps. In particular it is unclear if the "assessing" step (b) is a subset of "compiling" or an independent step. The "and" at the end of step '(a)' indicates that perhaps '(b)' is also part of the compiling step."

In reply thereto, the "and" at the end of step '(a)' of each of claims 156, 157 and 171 is merely a conventional "separator" term that is frequently used in patent claim drafting. It distinguished a preceding step of claims 156, 157

and 171, i.e., step '(a)', from a subsequent step of those claims, i.e., step '(b)'. In each case, step '(b)' is a discrete step and not a subset of step '(a)'. Nevertheless, in order to avoid possible confusion, Applicants have deleted the word "and" from the end of step '(a)' in each of claims 156, 157 and 171. Similar changes have been voluntarily made as well to independent claims 184, 194, 214 and 220. Accordingly, Applicants respectfully request that the outstanding Section 112, 2nd paragraph rejection of claims 156-183 be withdrawn.

Claim Rejections - 35 USC § 102

1. Taricani, Jr. (U.S. Patent No. 6,016,479, "Taricani")

Claims 156-224 stand rejected under 35 U.S.C. § 102(e) as being clearly anticipated by Taricani. Such rejection is respectfully traversed.

Applicants do not contest that Taricani teaches a system for enabling point of sale taxation by sellers who do not have a physical presence in a remote purchaser's state of residence. However, each of independent claims 156, 157 and 194 as amended herein requires that sales tax be collected at the point of sale, i.e., in real time at the moment of purchase. In diametric opposition, the Taricani system "invoices" a remote purchaser whereby the purchaser pays the tax after the point of sale transaction.

In one implementation, the present invention populates a database with data of interstate transactions on which the seller did not collect a designated tax. Such data is then appropriately organized, correlated and reviewed in the database, and tax due notices are automatically sent to purchasers based on such transaction data stored in the database on which no tax was collected.

Taricani at column 3, lines 46-52 (emphasis added).

The operation then proceeds to step S3 in which the network computer 1 after reviewing the data in the database 2 then automatically generates and sends, for example by mail or secure (e.g., encrypted) electronic communication, tax due notices to purchasers of goods on which the appropriate sales or use tax has not been paid. This generating and sending of the tax due notices can, e.g., take place on letterhead of the revenue agency collecting the taxes; in this instance, the operator of the network of the present invention acts as an agent of the revenue agency. Depending on the arrangement with the revenue agency, such tax due notices require payment to be sent directly to the revenue agency 4 or require remittance to the operator of the network computer 1. When the tax due notice indicates payment is to be paid to the network operator, the network operator essentially acts as an independent contractor for the revenue agency 4 and can take the revenue agency 4 out of the loop of collecting such taxes. Thus, implementing the procedure of FIG. 7 avoids the problem of shifting the tax collection burden on the seller, and also avoids having the government send tax due notices and collect and monitor the payment of tax remittances. Moreover, the system of FIG. 1 when implementing the process of FIG. 7 enables a separate entity to perform the tax collection process on interstate sales with minimal inconvenience on sellers, and state and local governments.

This generation and sending of a tax due notice in step S3 can be triggered by several events. In one case, a tax due notice can be sent for all untaxed sales transactions. However, this system may become cumbersome due to the need to generate and send a large number of tax due notices for relatively small tax amounts. Another alternative is to periodically send one tax due notice report to a purchaser indicating all taxable transactions during a specific time period for which taxes are due. For example, once every month or once every three months a purchaser may receive a tax due notice indicating all purchases for the one-month or three-month period for which taxes are due. Of course, a hybrid type system could also be implemented in which the tax due notices are periodically sent, and in which if a certain purchase is greater than a specific amount, i.e. if a certain purchase is for a large value, say \$1,000.00 or more, a specific tax due notice will be issued for that one certain large value purchase.

Taricani at column 6, line 36 through column 7, line 12.

Notwithstanding the fact that submission of tax due notices to purchasers places those persons in possible violation of law should they fail to pay on the notices, the Taricani system is not one in which tax payment is guaranteed. In all probability, some segment of the population simply will not pay their taxes at least on some occasions. As such, not all tax revenue that could otherwise be collected would in fact be collected. Even if some of the shortage is recoverable, it would be gained only through the cost and expense of legal recovery mechanisms.

If the payment is not received within the specified time period, i.e. NO in step S40, the operation then proceeds to step S41. In step S41 it is determined

whether a time for an alternative collection process has arrived. For example, a purchaser may be given 90 days to voluntarily remit the due tax. If this time period has not expired, i.e. NO in step S41, the operation then proceeds to step S45, in which the database 2 is updated to indicate that no payment has been received. The operation can then proceed again to step S3 where a new tax due notice is generated and sent, and this new tax due notice can then indicate that payment is late. In the example noted above, a purchaser may be given 90 days to fully pay a due tax. *When this time period expires, i.e. YES in step S41, the operation then proceeds to step S43 where the payment can be collected via alternative methods. The alternative methods can involve state action such as garnishment of wages, obtaining judgments, etc.*

Taricani at column 11, lines 10-25 (emphasis added).

In stark contrast, the present invention assures 100% point of sale tax collection, which is a distinct advantage for the merchant that is subject to sales tax audits by state and other jurisdictional tax authorities, as well as the tax authorities themselves which receive maximum sales tax revenue without resort to legal action to recover revenue.

It will be appreciated, therefore, that Taricani does not anticipate, suggest or render obvious the invention defined in Applicants' independent claims 156, 157 and 194. As such, Applicants kindly request withdrawal of the outstanding section 102(e) rejection of these claims, as well as the same rejection of claims 158-170 and claims 195-213 which respectively depend from claims 157 and 194.

Independent claim 171 has been amended herein to indicate that following the steps of comparing a client database with an archived client database hosted on a computer-readable medium, and modifying the client database to include updated tax assessment information from the master database (which are sub-steps of the master database compiling step), a client is provided with a modified client database. In this way, the client is always provided with data that is as current as that as the claimed system's master tax assessment database.

The Taricani system does not disclose or suggest this capability. Consequently, Applicants request withdrawal of the outstanding Section 102(e) rejection of claim 171 and its dependent claims 172-183.

In combination, steps (b), (c), (d) and (e) of independent claim 184, enable a participant to access shared information in the centralized master tax database to obtain product and/or service point of sale tax assessment information not only in taxing jurisdictions in which it presently does business but also in taxing jurisdictions in which it may wish to do business in the future. These capabilities are simply not taught nor are they suggested in Taricani. Therefore, Applicants request withdrawal of the outstanding Section 102(e) rejection of claim 184 and its dependent claims 185-193.

Independent claims 214 and 220 recite two different methods of assessing point of sale taxation with high geographical

resolution and precision. As a result of the steps of tax assessment database compilation defined in those claims, point of sale taxes are reliably assessed in the proper tax assessment jurisdiction. In both of claims 214 and 220, postal code data associated with a plurality of taxing jurisdictions is obtained. In claim 214, latitude and longitude coordinates data associated with the taxing jurisdictions for which postal code data has been obtained is also obtained. Then, the postal code data and the latitude and longitude coordinates data are combined to establish latitude and longitude coordinates data for jurisdictional boundaries of the taxing jurisdictions.

Similarly, in claim 220 processed census data is combined with postal code data to establish Federal Information Processing Standard (FIPS) and Minor Civil Division (MCD) data for jurisdictional boundaries of the taxing jurisdictions.

Applicants respectfully submit that Taricani is silent with regard to these precise methods of taxing jurisdictional boundary identification methodologies. Applicants therefore request withdrawal of the outstanding Section 102(e) rejection of claims 214 and 220 and their respective dependent claims 215-219 and 221-224.

2. Iwasa (U.S. Patent No. 6,141,650)

Claims 156-224 stand rejected under 35 U.S.C. § 102(e) as being clearly anticipated by Iwasa. Such rejection is respectfully traversed.

Iwasa is far removed from the present invention in all claimed respects. It pertains to a system for creating a sales tax table or chart that sets upper and lower tax values for ranges of differently priced goods. It mentions nothing of:

A method of assessing point of sale taxation, said method comprising the steps of:

(a) compiling a tax assessment database for commodities identified by uniform commodities codes, said compiling comprising the steps of:

gathering uniform commodities code information and commodities description information corresponding to said uniform commodities code information from a plurality of clients;

gathering tax assessment information for each of said commodities for a plurality of taxing jurisdictions;

correlating said uniform commodities code information and said commodities description information with said tax assessment information; and

storing said uniform commodities code information, said commodities description information and said tax assessment information in a master database hosted on a computer-readable medium;

(b) assessing appropriate sales tax for commodities sold by point of sale transactions in at least one of said taxing jurisdictions in reliance upon said uniform commodities code information, said commodities description information and said tax assessment information stored in said master database

which is subject matter common to each of independent claims 156, 157, 171 184 and 194.

Likewise, it contains no reference to:

A method of assessing point of sale taxation, said method comprising the steps of:

(a) compiling a tax assessment database for commodities identified by uniform commodities codes, said compiling comprising the steps of:

obtaining postal code data associated with a plurality of taxing jurisdictions;

obtaining latitude and longitude coordinates data (or FIPS and MCD data) associated with said taxing jurisdictions; and

combining said postal code data and said latitude and longitude coordinates data to establish latitude and longitude coordinates data for jurisdictional boundaries of said taxing jurisdictions (or combining said postal code data and said census data to establish FIPS and MCD code data for jurisdictional boundaries of said taxing jurisdictions);

storing said latitude and longitude coordinates data for jurisdictional boundaries of said taxing jurisdictions in a master database hosted on a computer-readable medium;

(b) assessing appropriate sales tax for commodities sold by point of sale transactions in at least one of said taxing jurisdictions in reliance upon said latitude and longitude coordinates data for jurisdictional boundaries of said taxing jurisdictions stored in said master database

which is subject matter common to each of independent claims 214 and 220.

Accordingly, Applicants request that the outstanding section 102(e) rejection of claims 156-224 be withdrawn.

3. Petrimoulx, et al. (U.S. Statutory Invention Registration No. H1,830, "Petrimoulx")

Claims 156-224 stand rejected under 35 U.S.C. § 102(e) as being clearly anticipated by Petrimoulx. Such rejection is respectfully traversed.

Most strikingly, Petrimoulx is a system concerned with a use tax accrual and determination. It therefore does not and cannot teach one of ordinary skill in the art how to make the methods for assessing point of sale taxation called for in Applicants' claims 156-224. In Petrimoulx's words:

[S]ales taxes (the interest of the selling party in a transaction) and use-taxes (the interest of the purchasing party in a transaction) are *different* (although, in many situations, they appear to result in the same amount of tax being paid), so companies

purchasing and using goods need a system which is directed to handling use-tax issues and detail.

Petrimoulx at column 1, line 66 through column 2, line 5 (emphasis added).

A fair and proper reading of Petrimoulx, therefore, leads one to the inescapable conclusion that it does not disclose, suggest or otherwise render obvious any of Applicants' claims. Withdrawal of the outstanding section 103(e) rejection of claims 156-224 in reliance upon Petrimoulx is respectfully requested.

4. Sullivan (Published U.S. Patent Application No. US 2003/0093320)

Claims 156-224 stand rejected under 35 U.S.C. § 102(e) as being clearly anticipated by Sullivan. Such rejection is respectfully traversed.

The Sullivan application has an effective filing date of November 30, 1999 by virtue of its claim of priority to U.S. Provisional Patent Application No. 60/168,081. Through the attached Declarations under 37 C.F.R. § 1.131 of Applicant Kevin C. Johnson (attached hereto as Exhibit D), Applicants will demonstrate that they constructively reduced the present invention to practice on November 29, 1999 by virtue of their filing of U.S. Patent Application No. 09/451,009 entitled ADAPTIVE SYSTEM FOR POINT OF SALE TAX ASSESSMENT (" '009 application"). A true and correct copy of the '009 application

and its USPTO filing receipt is attached hereto as Exhibit E. The '009 application became abandoned on November 1, 2002. Thus, the '009 application was pending, along with the several provisional patent applications from which the present application claims priority, as of June 14, 2001 filing date of the present application. The '009 application disclosed and claimed a subset of the broader inventive features included in many of the claims of the present application as originally filed. Indeed, as the Examiner will see by comparing the originally filed drawings and claims of the '009 application with those originally filed in the present application, many are identical to or nearly identical to one another. See for example FIGS. 1-4. As another illustration, Claim 1 of the '009 application as originally filed is reproduced herebelow.

1. A method of compiling a tax assessment database for point of sale goods or services transacted via barcode technology, said method comprising the steps of:

gathering barcode information and goods or services description information corresponding to said barcode information from a plurality of clients;

gathering tax assessment information for each of said goods or services for desired taxing jurisdictions;

correlating said barcode information and said goods or services description information with said tax assessment information; and

storing said barcode information, said goods or services description information and said tax assessment information in a master database.

Claim 1 as originally filed in the present application is reproduced below.

1. A method of compiling a tax assessment database for commodities identified by uniform commodities codes, said method comprising the steps of:

gathering uniform commodities code information and commodities description information corresponding to said uniform commodities code information from a plurality of clients;

gathering tax assessment information for each of said commodities for desired taxing jurisdictions;

correlating said uniform commodities code information and said commodities description information with said tax assessment information; and

storing said uniform commodities code information, said commodities description information and said tax assessment information in a master database.

The only appreciable differences between originally filed claim 1 of the '009 application and its counterpart in the present application are (1) the change of the phrase "goods and services" to the term "commodities," and (2) the change of the phrase "barcode information" to the phrase "uniform commodities code information." These changes came about as Applicants began to appreciate after filing the '009 application that the practical applications of their inventive concept could be expanded beyond use with only barcodes (i.e., Universal Product Codes or UPCs) but with other types of uniform commodities code information such as Universal Service Code (USC) codes, International Standard Book Number (ISBN) codes, International Standard Serial Number (ISSN) codes, Global Service Relation Number (GSRN) codes, and European Article Numbering (EAN) codes. These and other advances in Applicants understanding of the

potential of their underlying inventive concepts embodied in the '009 application led to the several provisional patent applications from which the present application claims priority to, ultimately, the present application. Thus, there was continuity of prosecution of the subject matter between the filing dates of the '009 application and the present application which establishes constructive reduction of the present application as of the November 29, 1999 filing date of the '009 application.¹

At minimum, Applicants' filing of the '009 application establishes conception of the presently invention prior to the November 30, 1999 effective filing date of Sullivan. And, Applicants Johnson's and Ridley's accompanying Section 131 declarations will clearly show that they diligently reduced their invention to actual practice shortly after filing the '009 application. Those declarations will further show their continued diligence by revealing that they continued to enlarge upon and refine the basic concepts of the '009 application as evidenced by their filing of the six provisional patent applications from which the present application claims priority in a span of seven to eight months after filing of the '009 application which are expressly directed to improvements on those concepts.

¹ Constructive reduction to practice requires that there be copendency between the earlier and later applications and continuity of prosecution of the subject matter of the earlier and later applications. *See, In re Costello*, 717 F.2d 1346, 1349, 219 USPQ 389, 391 (Fed. Cir. 1983); *Fried v. Murray*, 267 F.2d 326, 327, 122 USPQ 14, 15 (CCPA 1959).

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Amendment Dated: September 28, 2004
In Reply to Office Action Dated: April 28, 2004

Accordingly, since Applicants can show a constructive reduction to practice of the present invention prior to November 30, 1999 or, at minimum, a conception date prior to that date followed by diligent actual reduction of the invention to practice shortly thereafter, the Sullivan reference is disqualified as a reference under 35 U.S.C. § 102(e). Applicants therefore request that the outstanding rejection under Section 102(e) in reliance upon Sullivan be withdrawn.


In view of the foregoing, the instant application is believed to be in condition for allowance and, therefore, early issuance thereof is earnestly solicited.

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Amendment Dated: September 28, 2004
In Reply to Office Action Dated: April 28, 2004

If the Examiner believes that a telephone interview would be beneficial to advance prosecution of the present application, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

Date: September 28, 2004



John F. Letchford
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Docket No. 11221-011 Client Dryden Matrix
Serial No. 09/881,533 Atty. J. Letchford

The Patent Office acknowledges and has stamped hereon the date of receipt of the items checked below:

- ☒ Amendment Preliminary
- ☐ Appeal notice/Brief in triplicate
- ☐ Application
- ☐ Assignment
- ☐ Cert. of correction request
- ☒ Cert. of mailing John Letchford
- ☐ Charge deposit account in duplicate
- ☐ Check \$ _____ for _____
- ☐ Declaration
- ☐ Demand for PCT examination
- ☐ Drawings, _____ sheets
- ☐ Express Mail Label No. _____
- ☐ Extension of time petition
- ☐ Information disclosure statement
- ☐ Issue fee transmittal & advance order
- ☐ Letter
- ☐ Maintenance fee transmittal
- ☐ National phase US/PCT fee transmittal
- ☐ Opposition notice in triplicate
- ☐ Petition
- ☐ Power of attorney
- ☐ Priority claim
- ☐ Renewal application
- ☐ Response
- ☐ Specimen(s)
- ☒ Other Transmittal form, post card

Re: Sales Tax Assessment, Remittance and Collection System

Docket No. 11221-011 Client Dryden Matrix
Serial No. 09/881,533 Atty. J. Letchford

The Patent Office acknowledges and has stamped hereon the date of receipt of the items checked below:

- ☒ Amendment Preliminary
- ☐ Appeal notice/Brief in triplicate
- ☐ Application
- ☐ Assignment
- ☐ Cert. of correction request
- ☒ Cert. of mailing John Letchford
- ☐ Charge deposit account in duplicate
- ☐ Check \$ _____ for _____
- ☐ Declaration
- ☐ Demand for PCT examination
- ☐ Drawings, _____ sheets
- ☐ Express Mail Label No. _____
- ☐ Extension of time petition
- ☐ Information disclosure statement
- ☐ Issue fee transmittal & advance order
- ☐ Letter
- ☐ Maintenance fee transmittal
- ☐ National phase US/PCT fee transmittal
- ☐ Opposition notice in triplicate
- ☐ Petition
- ☐ Power of attorney
- ☐ Priority claim
- ☐ Renewal application
- ☐ Response
- ☐ Specimen(s)
- ☒ Other Transmittal form, post card



Re: Sales Tax Assessment, Remittance and Collection System

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**TRANSMITTAL
FORM**


(to be used for all correspondence after initial filing)

Application Number	09/881,533
Filing Date	06/14/2001
First Named Inventor	Kevin C. Johnson, et al.
Group Art Unit	2161
Examiner Name	
Attorney Docket Number	11221-011

Total Number of Pages in This Submission **18****ENCLOSURES (check all that apply)**

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input checked="" type="checkbox"/> Amendment / Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application) <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): return receipt postcard
Remarks 		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	John F. Letchford
Signature	
Date	June 18, 2002

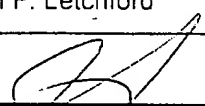
CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, Washington, DC 20231 on this date:

June 18, 2002

Typed or printed name John F. Letchford

Signature



Date June 18, 2002

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: :
Kevin C. JOHNSON, et al. :
 :
Application No.: 09/881,533 :
 : Group Art Unit: 2161
Filed: June 14, 2001 :
 : Examiner: To be
 : assigned
For: SALES TAX ASSESSMENT, :
REMITTANCE AND COLLECTION :
SYSTEM :
 :
Attorney Docket No.: 11221-011 :

I, John F. Letchford, Registration No. 33,328, certify that this correspondence is being deposited with the U.S. Postal Service as first class mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, DC 20231 on June 18, 2002.



John F. Letchford

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

PRELIMINARY AMENDMENT

Applicant respectfully requests entry of the following amendments into the above-identified application. Each of the amendments finds full support in the claims, specification and/or drawings as filed.

In the Claims:

Please add new claims 88-155 as follows:

88. (New) A method of administering point of sale taxation, said method comprising the steps of:

(a) compiling a tax assessment database for commodities identified by uniform commodities codes, said compiling comprising the steps of:

gathering uniform commodities code information and commodities description information corresponding to said uniform commodities code information from a plurality of clients;

gathering tax assessment information for each of said commodities for desired taxing jurisdictions;

correlating said uniform commodities code information and said commodities description information with said tax assessment information; and

storing said uniform commodities code information, said commodities description information and said tax assessment information in a master database hosted on a computer-readable medium; and

(b) assessing, by the plurality of clients, appropriate sales tax for commodities sold by point of sale transactions in said taxing jurisdictions in reliance upon said uniform commodities code information, said commodities description information and said tax assessment information stored in said master database.

89. (New) The method of claim 88 wherein said uniform commodities code information is selected from the group consisting of the Universal Product Code (UPC) system, the Universal Service Code (USC) system, the International Standard Book Number (ISBN) system, the International Standard Serial Number (ISSN) system, the Global Service Relation Number (GSRN) system, and the European Article Numbering (EAN) system.

90. (New) The method of claim 88 wherein said tax assessment information comprises an indication of whether a commodity is taxable, non-taxable or tax-exempt.

91. (New) The method of claim 90 wherein, if a commodity is indicated as being taxable, said tax assessment information further includes a tax rate associated with the commodity.

92. (New) The method of claim 88 wherein said taxing jurisdictions comprise local taxing jurisdictions.

93. (New) The method of claim 88 wherein said taxing jurisdictions comprise state taxing jurisdictions.

94. (New) The method of claim 88 wherein said taxing jurisdictions comprise federal taxing jurisdictions.

95. (New) The method of claim 88 wherein said taxing jurisdictions comprise foreign taxing jurisdictions.

96. (New) The method of claim 88 further comprising the steps of comparing a new client database hosted on a computer-

readable medium with said master database, and modifying said master database to include information from said new client database.

97. (New) The method of claim 88 further comprising the steps of comparing a new client database hosted on a computer-readable medium with said master database, and modifying said new client database to include information from said master database.

98. (New) The method of claim 97 further comprising date-tagging said new client database.

99. (New) The method of claim 98 further comprising providing a new client with said date-tagged new client database.

100. (New) The method of claim 97 further comprising providing a new client with said modified new client database.

101. (New) The method of claim 97 further comprising archiving said new client database on a computer-readable medium.

102. (New) A method of administering point of sale taxation, said method comprising the steps of:

(a) compiling a tax assessment database for commodities identified by uniform commodities codes, said compiling comprising the steps of:

gathering uniform commodities code information and commodities description information corresponding to said

uniform commodities code information from a plurality of clients;

gathering tax assessment information for each of said commodities for desired taxing jurisdictions;

correlating said uniform commodities code information and said commodities description information with said tax assessment information;

storing said uniform commodities code information, said commodities description information and said tax assessment information in a master database hosted on a computer-readable medium;

comparing said client database with an archived client database hosted on a computer-readable medium; and

modifying said client database to include updated tax assessment information from said master database; and

(b) assessing, by the plurality of clients, appropriate sales tax for commodities sold by point of sale transactions in said taxing jurisdictions in reliance upon said uniform commodities code information, said commodities description information and said tax assessment information stored in at least one of said master database and said client database.

103. (New) The method of claim 102 wherein said uniform commodities code information is selected from the group consisting of the Universal Product Code (UPC) system, the Universal Service Code (USC) system, the International Standard Book Number (ISBN) system, the International Standard Serial Number (ISSN) system, the Global Service Relation Number (GSRN) system, and the European Article Numbering (EAN) system.

104. (New) The method of claim 102 wherein said tax assessment information comprises an indication of whether a commodity is taxable, non-taxable or tax-exempt.

105. (New) The method of claim 104 wherein, if a commodity is indicated as being taxable, said tax assessment information further includes a tax rate associated with the commodity.

106. (New) The method of claim 102 further comprising date-tagging said client database.

107. (New) The method of claim 106 further comprising providing a client with said date-tagged client database.

108. (New) The method of claim 102 further comprising providing a client with said modified client database.

109. (New) The method of claim 102 further comprising archiving said client database on a computer-readable medium.

110. (New) The method of claim 102 further comprising modifying said master database to include uniform commodities code information and commodities information from said client database.

111. (New) The method of claim 102 wherein said taxing jurisdictions comprise local taxing jurisdictions.

112. (New) The method of claim 102 wherein said taxing jurisdictions comprise state taxing jurisdictions.

113. (New) The method of claim 102 wherein said taxing jurisdictions comprise federal taxing jurisdictions.

114. (New) The method of claim 102 wherein said taxing jurisdictions comprise foreign taxing jurisdictions.

115. (New) A method of administering point of sale taxation, said method comprising the steps of:

(a) compiling a tax assessment database for commodities identified by uniform commodities codes, said compiling comprising the steps of:

gathering uniform commodities code information and commodities description information corresponding to said uniform commodities code information from a plurality of clients;

gathering tax assessment information for each of said commodities for desired taxing jurisdictions;

correlating said uniform commodities code information and said commodities description information with said tax assessment information; and

storing said uniform commodities code information, said commodities description information and said tax assessment information in a master database hosted on a computer-readable medium;

(b) accessing said master database by a client, the client inquiring as to the tax assessment characteristics of at least one item of uniform commodities code information;

(c) comparing said at least one item of uniform commodities code information with said master database; and

(d) modifying a client database hosted on a computer-readable medium to include updated tax assessment information from said master database for said at least one item of uniform commodities code information for at least one taxing jurisdiction of interest to the client; and

(e) assessing, by the client, at such time that the client chooses to sell said at least one item of uniform commodities code information in at least one taxing jurisdiction of interest, appropriate sales tax for commodities sold by point of sale transactions in the at least one taxing jurisdiction in reliance upon said uniform commodities code information, said commodities description information and said tax assessment information stored in at least one of said master database and said client database.

116. (New) The method of claim 115 wherein said uniform commodities code information is selected from the group consisting of the Universal Product Code (UPC) system, the Universal Service Code (USC) system, the International Standard Book Number (ISBN) system, the International Standard Serial Number (ISSN) system, the Global Service Relation Number (GSRN) system, and the European Article Numbering (EAN) system.

117. (New) The method of claim 115 wherein said tax assessment information comprises an indication of whether a commodity is taxable, non-taxable or tax-exempt.

118. (New) The method of claim 117 wherein, if a commodity is indicated as being taxable, said tax assessment information further includes a tax rate associated with the commodity.

119. (New) The method of claim 115 wherein said step of accessing said master database is performed via a broadband network.

120. (New) The method of claim 119 wherein said broadband network is the Internet.

121. (New) The method of claim 115 wherein said taxing jurisdictions comprise local taxing jurisdictions.

122. (New) The method of claim 115 wherein said taxing jurisdictions comprise state taxing jurisdictions.

123. (New) The method of claim 115 wherein said taxing jurisdictions comprise federal taxing jurisdictions.

124. (New) The method of claim 115 wherein said taxing jurisdictions comprise foreign taxing jurisdictions.

125. (New) A method of administering point of sale taxation, said method comprising the steps of:

(a) compiling a tax assessment database for commodities identified by uniform commodities codes, said compiling comprising the steps of:

obtaining uniform commodities code information and commodities description information corresponding to said

uniform commodities code information, wherein said uniform commodities code information and said commodities description information are gathered from a plurality of clients;

obtaining tax assessment information for commodities in desired taxing jurisdictions;

obtaining jurisdictional boundary information for said taxing jurisdictions; and

correlating said uniform commodities code information, said commodities description information and said jurisdictional boundary information with said tax assessment information to determine the tax status for said commodities in said taxing jurisdictions; and

storing said uniform commodities code information, said commodities description information, said jurisdictional boundary information and said tax assessment information in a master database hosted on a computer-readable medium; and

(b) assessing, by the plurality of clients, appropriate sales tax for commodities sold by point of sale transactions in said taxing jurisdictions in reliance upon said uniform commodities code information, said commodities description information, said jurisdictional boundary information and said tax assessment information stored in said master database.

126. (New) The method of claim 125 wherein said uniform commodities code information is selected from the group consisting of the Universal Product Code (UPC) system, the Universal Service Code (USC) system, the International Standard Book Number (ISBN) system, the International Standard Serial Number (ISSN) system, the Global Service Relation

Number (GSRN) system, and the European Article Numbering (EAN) system.

127. (New) The method of claim 125 wherein said tax assessment information comprises an indication of whether a commodity is taxable, non-taxable or tax-exempt.

128. (New) The method of claim 127 wherein, if a commodity is indicated as being taxable, said tax assessment information further includes a tax rate associated with the commodity.

129. (New) The method of claim 125 wherein said taxing jurisdictions comprise local taxing jurisdictions.

130. (New) The method of claim 125 wherein said taxing jurisdictions comprise state taxing jurisdictions.

131. (New) The method of claim 125 wherein said taxing jurisdictions comprise federal taxing jurisdictions.

132. (New) The method of claim 125 wherein said taxing jurisdictions comprise foreign taxing jurisdictions.

133. (New) The method of claim 125 wherein said jurisdictional boundary information comprises postal code data for said taxing jurisdictions.

134. (New) The method of claim 133 wherein said postal code data for said taxing jurisdictions comprises ZIP-related codes.

135. (New) The method of claim 134 wherein said ZIP-related codes comprise five-digit ZIP codes.

136. (New) The method of claim 134 wherein said ZIP-related codes comprise ZIP + 4 codes.

137. (New) The method of claim 134 wherein said ZIP-related codes comprise ZIP + 6 codes.

138. (New) The method of claim 125 wherein said jurisdictional boundary information comprises latitude and longitude coordinates for said taxing jurisdictions.

139. (New) The method of claim 138 wherein said latitude and longitude coordinates comprise latitude and longitude data collected while traversing a path via a receiver in communication with satellites of the global positioning system.

140. (New) The method of claim 138 further comprising comparing a physical address related to purchase of at least one commodity with said latitude and longitude data to determine in which of said taxing jurisdictions the commodity is subject to sales taxation.

141. (New) The method of claim 140 wherein said physical address is selected from the group consisting of a billing address, delivery address, an address of a point of consumption of services, an address of a point of rendering of services, and an address of a service provider.

142. (New) The method of claim 125 wherein said jurisdictional boundary information comprises census data associated with said taxing jurisdictions and processing said census data such that counties receive a unique Federal Information Processing Standard (FIPS) code and smaller jurisdictions receive a unique Minor Civil Division (MCD) code.

143. (New) The method of claim 142 further comprising comparing a physical address related to purchase of at least one commodity with at least one of said FIPS codes and said MCD codes to determine in which of said taxing jurisdictions the commodity is subject to sales taxation.

144. (New) The method of claim 142 wherein said physical address is selected from the group consisting of a billing address, delivery address, an address of a point of consumption of services, an address of a point of rendering of services, and an address of a service provider.

145. (New) A method of administering point of sale taxation, said method comprising the steps of:

(a) compiling a tax assessment database for commodities identified by uniform commodities codes, said compiling comprising the steps of:

obtaining postal code data associated with said desired taxing jurisdictions;

obtaining latitude and longitude coordinates data associated with said desired taxing jurisdictions; and

combining said postal code data and said latitude and longitude coordinates data to establish latitude and longitude coordinates data for jurisdictional boundaries of said taxing jurisdictions;

storing said latitude and longitude coordinates data for jurisdictional boundaries of said taxing jurisdictions in a master database hosted on a computer-readable medium; and

(b) assessing, by clients in communication with said master database, appropriate sales tax for commodities sold by point of sale transactions in said taxing jurisdictions in reliance upon said latitude and longitude coordinates data for jurisdictional boundaries of said taxing jurisdictions stored in said master database.

146. (New) The method of claim 145 wherein said postal code data for said taxing jurisdictions comprises ZIP-related codes.

147. (New) The method of claim 146 wherein said ZIP-related codes comprise five-digit ZIP codes.

148. (New) The method of claim 146 wherein said ZIP-related codes comprise ZIP + 4 codes.

149. (New) The method of claim 146 wherein said ZIP-related codes comprise ZIP + 6 codes.

150. (New) The method of claim 145 wherein said step of gathering latitude and longitude coordinates data comprises traversing a path and collecting latitude and longitude data

via a receiver in communication with satellites of the global positioning system.

151. (New) A method of administering point of sale taxation, said method comprising the steps of:

(a) compiling a tax assessment database for commodities identified by uniform commodities codes, said compiling comprising the steps of:

obtaining postal code data associated with said desired taxing jurisdictions;

obtaining census data associated with said taxing jurisdictions and processing said census data such that counties receive a unique Federal Information Processing Standard (FIPS) code and smaller jurisdictions receive a unique Minor Civil Division (MCD) code;

combining said postal code data and said census data to establish FIPS and MCD code data for jurisdictional boundaries of said taxing jurisdictions; and

storing said FIPS and MCD code data for jurisdictional boundaries of said taxing jurisdictions in a master database hosted on a computer-readable medium; and

(b) assessing, by clients in communication with said master database, appropriate sales tax for commodities sold by point of sale transactions in said taxing jurisdictions in reliance upon said FIPS and MCD code data for jurisdictional boundaries of said taxing jurisdictions stored in said master database.

152. (New) The method of claim 151 wherein said postal code data for said taxing jurisdictions comprises ZIP-related codes.

153. (New) The method of claim 152 wherein said ZIP-related codes comprise five-digit ZIP codes.

154. (New) The method of claim 152 wherein said ZIP-related codes comprise ZIP + 4 codes.

155. (New) The method of claim 152 wherein said ZIP-related codes comprise ZIP + 6 codes.

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Please cancel claims 1-68 without prejudice.

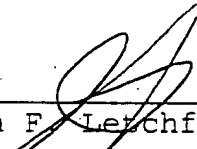
REMARKS

The instant amendment cancels an equal number of independent claims (6) and total claims (67) as it adds. Accordingly, no fee is believed to be required for entry thereof. If, however, a fee is required, the U.S. Patent and Trademark Office is hereby authorized to deduct such fee from Deposit Account No. 501-555. A duplicate copy of this Preliminary Amendment is enclosed.

If the Examiner believes that a telephone interview would be beneficial to advance prosecution of the present application, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

Date: June 18, 2002



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COMMENTS:

In re Application of Kevin C. JOHNSON, et al.

Application No. 09/881,533

Filed: June 14, 2001

For: SALES TAX ASSESSMENT, REMITTANCE AND COLLECTION SYSTEM

Atty. Docket No. 11221-011

Group Art Unit: 2161

Examiner: To be assigned

SUPPLEMENTAL PRELIMINARY AMENDMENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: :
Kevin C. JOHNSON, et al. :
 :
Application No.: 09/881,533 :
 : Group Art Unit: 2161
Filed: June 14, 2001 :
 : Examiner: To be
 : assigned
For: SALES TAX ASSESSMENT, :
REMITTANCE AND COLLECTION :
SYSTEM :
 :
Attorney Docket No.: 11221-011 :

I, John F. Letchford, Registration No. 33,328, hereby certify that this correspondence is being transmitted by facsimile to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, to facsimile number (703) 746-7239 on June 12, 2003.

John F. Letchford

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

SUPPLEMENTAL PRELIMINARY AMENDMENT

Applicant respectfully requests entry of the following amendments into the above-identified application. Each of the amendments finds full support in the claims, specification and/or drawings as filed.

In the Claims:

Please amend claims 88, 92-95, 102, 111-115, 121-125, 129-134, 138, 140, 142, 143, 145, 146, 151 and 152 as follows:

88. (Amended) A method of assessing point of sale taxation, said method comprising the steps of:

(a) compiling a tax assessment database for commodities identified by uniform commodities codes, said compiling comprising the steps of:

gathering uniform commodities code information and commodities description information corresponding to said uniform commodities code information from a plurality of clients;

gathering tax assessment information for each of said commodities for at least one taxing jurisdiction;

correlating said uniform commodities code information and said commodities description information with said tax assessment information; and

storing said uniform commodities code information, said commodities description information and said tax assessment information in a master database hosted on a computer-readable medium; and

(b) assessing appropriate sales tax for commodities sold by point of sale transactions in said at least one taxing jurisdiction in reliance upon said uniform commodities code information, said commodities description information and said tax assessment information stored in said master database.

92. (Amended) The method of claim 88 wherein said at least one taxing jurisdiction comprises at least one local taxing jurisdiction.

93. (Amended) The method of claim 88 wherein said at least one taxing jurisdiction comprises at least one state taxing jurisdiction.

94. (Amended) The method of claim 88 wherein said at least one taxing jurisdiction comprises at least one federal taxing jurisdiction.

95. (Amended) The method of claim 88 wherein said at least one taxing jurisdiction comprises at least one foreign taxing jurisdiction.

102. (Amended) A method of assessing point of sale taxation, said method comprising the steps of:

(a) compiling a tax assessment database for commodities identified by uniform commodities codes, said compiling comprising the steps of:

gathering uniform commodities code information and commodities description information corresponding to said uniform commodities code information from a plurality of clients;

gathering tax assessment information for each of said commodities for at least one taxing jurisdiction;

correlating said uniform commodities code information and said commodities description information with said tax assessment information;

storing said uniform commodities code information, said commodities description information and said tax assessment information in a master database hosted on a computer-readable medium;

comparing a client database with an archived client database hosted on a computer-readable medium; and

modifying said client database to include updated tax assessment information from said master database; and

(b) assessing appropriate sales tax for commodities sold by point of sale transactions in said at least one taxing jurisdiction in reliance upon said uniform commodities code information, said commodities description information and said tax assessment information stored in at least one of said master database and said client database.

111. (Amended) The method of claim 102 wherein said at least one taxing jurisdiction comprises at least one local taxing jurisdiction.

112. (Amended) The method of claim 102 wherein said at least one taxing jurisdiction comprises at least one state taxing jurisdiction.

113. (Amended) The method of claim 102 wherein said at least one taxing jurisdiction comprises at least one federal taxing jurisdiction.

114. (Amended) The method of claim 102 wherein said at least one taxing jurisdiction comprises at least one foreign taxing jurisdiction.

115. (Amended) A method of assessing point of sale taxation, said method comprising the steps of:

(a) compiling a tax assessment database for commodities identified by uniform commodities codes, said compiling comprising the steps of:

gathering uniform commodities code information and commodities description information corresponding to said uniform commodities code information from a plurality of clients;

gathering tax assessment information for each of said commodities for at least one taxing jurisdiction;

correlating said uniform commodities code information and said commodities description information with said tax assessment information; and

storing said uniform commodities code information, said commodities description information and said tax assessment information in a master database hosted on a computer-readable medium;

(b) accessing said master database by a client, the client inquiring as to the tax assessment characteristics of at least one item of uniform commodities code information;

(c) comparing said at least one item of uniform commodities code information with said master database; and

(d) modifying a client database hosted on a computer-readable medium to include updated tax assessment information from said master database for said at least one item of uniform

commodities code information for at least one taxing jurisdiction of interest to the client; and

(e) assessing, by the client, at such time that the client chooses to sell said at least one item of uniform commodities code information in at least one taxing jurisdiction of interest to the client, appropriate sales tax for commodities sold by point of sale transactions in the at least one taxing jurisdiction in reliance upon said uniform commodities code information, said commodities description information and said tax assessment information stored in at least one of said master database and said client database.

121. (Amended) The method of claim 115 wherein said at least one taxing jurisdiction comprises at least one local taxing jurisdiction.

122. (Amended) The method of claim 115 wherein said at least one taxing jurisdiction comprises at least one state taxing jurisdiction.

123. (Amended) The method of claim 115 wherein said at least one taxing jurisdiction comprises at least one federal taxing jurisdiction.

124. (Amended) The method of claim 115 wherein said at least one taxing jurisdiction comprises at least one foreign taxing jurisdiction.

125. (Amended) A method of assessing point of sale taxation, said method comprising the steps of:

(a) compiling a tax assessment database for commodities identified by uniform commodities codes, said compiling comprising the steps of:

obtaining uniform commodities code information and commodities description information corresponding to said uniform commodities code information, wherein said uniform commodities code information and said commodities description information are gathered from a plurality of clients;

obtaining tax assessment information for commodities in at least one taxing jurisdiction;

obtaining jurisdictional boundary information for said at least one taxing jurisdiction; and

correlating said uniform commodities code information, said commodities description information and said jurisdictional boundary information with said tax assessment information to determine the tax status for said commodities in said at least one taxing jurisdiction; and

storing said uniform commodities code information, said commodities description information, said jurisdictional boundary information and said tax assessment information in a master database hosted on a computer-readable medium; and

(b) assessing appropriate sales tax for commodities sold by point of sale transactions in said at least one taxing jurisdiction in reliance upon said uniform commodities code information, said commodities description information, said jurisdictional boundary information and said tax assessment information stored in said master database.

129. (Amended) The method of claim 125 wherein said at least one taxing jurisdiction comprises at least one local taxing jurisdiction.

130. (Amended) The method of claim 125 wherein said at least one taxing jurisdiction comprises at least one state taxing jurisdiction.

131. (Amended) The method of claim 125 wherein said at least one taxing jurisdiction comprises at least one federal taxing jurisdiction.

132. (Amended) The method of claim 125 wherein said at least one taxing jurisdiction comprises at least one foreign taxing jurisdiction.

133. (Amended) The method of claim 125 wherein said jurisdictional boundary information comprises postal code data for said at least one taxing jurisdiction.

134. (Amended) The method of claim 133 wherein said postal code data for said at least one taxing jurisdiction comprises ZIP-related codes.

138. (Amended) The method of claim 125 wherein said jurisdictional boundary information comprises latitude and longitude coordinates for said at least one taxing jurisdiction.

140. (Amended) The method of claim 138 further comprising comparing a physical address related to purchase of at least one commodity with said latitude and longitude data to determine in which of said at least one taxing jurisdiction the commodity is subject to sales taxation.

142. (Amended) The method of claim 125 wherein said jurisdictional boundary information comprises census data associated with said at least one taxing jurisdiction and processing said census data such that counties receive a unique Federal Information Processing Standard (FIPS) code and smaller jurisdictions receive a unique Minor Civil Division (MCD) code.

143. (Amended) The method of claim 142 further comprising comparing a physical address related to purchase of at least one commodity with at least one of said FIPS codes and said MCD codes to determine in which of said at least one taxing jurisdiction the commodity is subject to sales taxation.

145. (Amended) A method of assessing point of sale taxation, said method comprising the steps of:

(a) compiling a tax assessment database for commodities identified by uniform commodities codes, said compiling comprising the steps of:

obtaining postal code data associated with at least one taxing jurisdiction;

obtaining latitude and longitude coordinates data associated with said at least one taxing jurisdiction; and

combining said postal code data and said latitude and longitude coordinates data to establish latitude and longitude coordinates data for jurisdictional boundaries of said at least one taxing jurisdiction;

storing said latitude and longitude coordinates data for jurisdictional boundaries of said at least one taxing jurisdiction in a master database hosted on a computer-readable medium; and

(b) assessing appropriate sales tax for commodities sold by point of sale transactions in said at least one taxing jurisdiction in reliance upon said latitude and longitude coordinates data for jurisdictional boundaries of said at least one taxing jurisdiction stored in said master database.

146. (Amended) The method of claim 145 wherein said postal code data for said at least one taxing jurisdiction comprises ZIP-related codes.

151. (Amended) A method of administering point of sale taxation, said method comprising the steps of:

(a) compiling a tax assessment database for commodities identified by uniform commodities codes, said compiling comprising the steps of:

obtaining postal code data associated with at least one taxing jurisdiction;

obtaining census data associated with said at least one taxing jurisdiction and processing said census data such that counties receive a unique Federal Information Processing

Standard (FIPS) code and smaller jurisdictions receive a unique Minor Civil Division (MCD) code;

combining said postal code data and said census data to establish FIPS and MCD code data for jurisdictional boundaries of said at least one taxing jurisdiction; and

storing said FIPS and MCD code data for jurisdictional boundaries of said at least one taxing in a master database hosted on a computer-readable medium; and

(b) assessing appropriate sales tax for commodities sold by point of sale transactions in said at least one taxing jurisdiction in reliance upon said FIPS and MCD code data for jurisdictional boundaries of said at least one taxing jurisdiction stored in said master database.

152. (Amended) The method of claim 151 wherein said postal code data for said at least one taxing jurisdiction comprises ZIP-related codes.

Please add new claim 156 as follows:

156. (New) A method of assessing point of sale taxation, said method comprising the steps of:

(a) accessing a database containing information relating to commodities identified by uniform commodities codes, said database being hosted on a computer-readable medium and having stored therein:

uniform commodities code information and commodities description information corresponding to said uniform

commodities code information gathered from a plurality of merchants; and

tax assessment information for each of said commodities for at least one taxing jurisdiction, wherein said uniform commodities code information and said commodities description information are correlated with said tax assessment information; and

(b) assessing appropriate sales tax for commodities sold by point of sale transactions in said at least one taxing jurisdiction in reliance upon said uniform commodities code information, said commodities description information and said tax assessment information stored in said database.

REMARKS


The instant Supplemental Preliminary Amendment is offered to clarify certain claim language and eliminate certain unnecessary claim limitations that were presented in the Preliminary Amendment filed June 24, 2002. ✓

ONE (1) NEW ADDITIONAL INDEPENDENT CLAIM IS BEING ADDED BY THIS SUPPLEMENTAL PRELIMINARY AMENDMENT. THE U.S. PATENT AND TRADEMARK OFFICE IS HEREBY AUTHORIZED TO DEDUCT THE FEE FOR THE ADDITIONAL INDEPENDENT CLAIM FROM DEPOSIT ACCOUNT NO. 501-555. APPLICANT CLAIMS SMALL ENTITY STATUS.

If the Examiner believes that a telephone interview would be beneficial to advance prosecution of the present application, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

Date: June 12, 2003



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Marked-up Version of Amended Claims as Submitted by
Supplemental Preliminary Amendment Dated June 12, 2003.

88. (Amended) A method of [administering] assessing point of sale taxation, said method comprising the steps of:

(a) compiling a tax assessment database for commodities identified by uniform commodities codes, said compiling comprising the steps of:

gathering uniform commodities code information and commodities description information corresponding to said uniform commodities code information from a plurality of clients;

gathering tax assessment information for each of said commodities for [desired taxing jurisdictions] at least one taxing jurisdiction;

correlating said uniform commodities code information and said commodities description information with said tax assessment information; and

storing said uniform commodities code information, said commodities description information and said tax assessment information in a master database hosted on a computer-readable medium; and

(b) assessing[, by the plurality of clients,] appropriate sales tax for commodities sold by point of sale transactions in said at least one taxing [jurisdictions] jurisdiction in reliance upon said uniform commodities code information, said commodities description information and said tax assessment information stored in said master database.

92. (Amended) The method of claim 88 wherein said at least one taxing [jurisdictions comprise] jurisdiction comprises at least one local taxing [jurisdictions] jurisdiction.

93. (Amended) The method of claim 88 wherein said at least one taxing [jurisdictions comprise] jurisdiction comprises at least one state taxing [jurisdictions] jurisdiction.

94. (Amended) The method of claim 88 wherein said at least one taxing [jurisdictions comprise] jurisdiction comprises at least one federal taxing [jurisdictions] jurisdiction.

95. (Amended) The method of claim 88 wherein said at least one taxing [jurisdictions comprise] jurisdiction comprises at least one foreign taxing [jurisdictions] jurisdiction.

102. (Amended) A method of [administering] assessing point of sale taxation, said method comprising the steps of:

(a) compiling a tax assessment database for commodities identified by uniform commodities codes, said compiling comprising the steps of:

gathering uniform commodities code information and commodities description information corresponding to said uniform commodities code information from a plurality of clients;

gathering tax assessment information for each of said commodities for [desired taxing jurisdictions] at least one taxing jurisdiction;

correlating said uniform commodities code information and said commodities description information with said tax assessment information;

storing said uniform commodities code information, said commodities description information and said tax assessment information in a master database hosted on a computer-readable medium;

comparing [said] a client database with an archived client database hosted on a computer-readable medium; and

modifying said client database to include updated tax assessment information from said master database; and

(b) assessing[, by the plurality of clients,] appropriate sales tax for commodities sold by point of sale transactions in said at least one taxing [jurisdictions] jurisdiction in reliance upon said uniform commodities code information, said commodities description information and said tax assessment information stored in at least one of said master database and said client database.

111. (Amended) The method of claim 102 wherein said at least one taxing [jurisdictions comprise] jurisdiction comprises at least one local taxing [jurisdictions] jurisdiction.

112. (Amended) The method of claim 102 wherein said at least one taxing [jurisdictions comprise] jurisdiction comprises at least one state taxing [jurisdictions] jurisdiction.

113. (Amended) The method of claim 102 wherein said at least one taxing [jurisdictions comprise] jurisdiction comprises at least one federal taxing [jurisdictions] jurisdiction.

114. (Amended) The method of claim 102 wherein said at least one taxing [jurisdictions comprise] jurisdiction comprises at least one foreign taxing [jurisdictions] jurisdiction.

115. (Amended) A method of [administering] assessing point of sale taxation, said method comprising the steps of:

(a) compiling a tax assessment database for commodities identified by uniform commodities codes, said compiling comprising the steps of:

gathering uniform commodities code information and commodities description information corresponding to said uniform commodities code information from a plurality of clients;

gathering tax assessment information for each of said commodities for [desired taxing jurisdictions] at least one taxing jurisdiction;

correlating said uniform commodities code information and said commodities description information with said tax assessment information; and

storing said uniform commodities code information, said commodities description information and said tax assessment information in a master database hosted on a computer-readable medium;

(b) accessing said master database by a client, the client inquiring as to the tax assessment characteristics of at least one item of uniform commodities code information;

(c) comparing said at least one item of uniform commodities code information with said master database; and

(d) modifying a client database hosted on a computer-readable medium to include updated tax assessment information from said master database for said at least one item of uniform commodities code information for at least one taxing jurisdiction of interest to the client; and

(e) assessing, by the client, at such time that the client chooses to sell said at least one item of uniform commodities code information in at least one taxing jurisdiction of interest to the client, appropriate sales tax for commodities sold by point of sale transactions in the at least one taxing jurisdiction in reliance upon said uniform commodities code information, said commodities description information and said tax assessment information stored in at least one of said master database and said client database.

121. (Amended) The method of claim 115 wherein said at least one taxing [jurisdictions comprise] jurisdiction comprises at least one local taxing [jurisdictions] jurisdiction.

122. (Amended) The method of claim 115 wherein said at least one taxing [jurisdictions comprise] jurisdiction comprises at least one state taxing [jurisdictions] jurisdiction.

123. (Amended) The method of claim 115 wherein said at least one taxing [jurisdictions comprise] jurisdiction comprises at least one federal taxing [jurisdictions] jurisdiction.

124. (Amended) The method of claim 115 wherein said at least one taxing [jurisdictions comprise] jurisdiction comprises at least one foreign taxing [jurisdictions] jurisdiction.

125. (Amended) A method of [administering] assessing point of sale taxation, said method comprising the steps of:

(a) compiling a tax assessment database for commodities identified by uniform commodities codes, said compiling comprising the steps of:

obtaining uniform commodities code information and commodities description information corresponding to said uniform commodities code information, wherein said uniform commodities code information and said commodities description information are gathered from a plurality of clients;

obtaining tax assessment information for commodities in [desired taxing jurisdictions] at least one taxing jurisdiction;

obtaining jurisdictional boundary information for said at least one taxing [jurisdictions] jurisdiction; and

correlating said uniform commodities code information, said commodities description information and said jurisdictional boundary information with said tax assessment information to determine the tax status for said commodities in said at least one taxing [jurisdictions] jurisdiction; and

storing said uniform commodities code information, said commodities description information, said jurisdictional boundary information and said tax assessment information in a master database hosted on a computer-readable medium; and

(b) assessing[, by the plurality of clients,] appropriate sales tax for commodities sold by point of sale transactions in said at least one taxing [jurisdictions] jurisdiction in reliance upon said uniform commodities code information, said commodities description information, said jurisdictional boundary information and said tax assessment information stored in said master database.

133. (Amended) The method of claim 125 wherein said jurisdictional boundary information comprises postal code data for said at least one taxing [jurisdictions] jurisdiction.

134. (Amended) The method of claim 133 wherein said postal code data for said at least one taxing [jurisdictions] jurisdiction comprises ZIP-related codes.

138. (Amended) The method of claim 125 wherein said jurisdictional boundary information comprises latitude and longitude coordinates for said at least one taxing [jurisdictions] jurisdiction.

140. (Amended) The method of claim 138 further comprising comparing a physical address related to purchase of at least one commodity with said latitude and longitude data to determine in which of said at least one taxing [jurisdictions] jurisdiction the commodity is subject to sales taxation.

142. (Amended) The method of claim 125 wherein said jurisdictional boundary information comprises census data associated with said at least one taxing [jurisdictions] jurisdiction and processing said census data such that counties receive a unique Federal Information Processing

Standard (FIPS) code and smaller jurisdictions receive a unique Minor Civil Division (MCD) code.

143. (Amended) The method of claim 142 further comprising comparing a physical address related to purchase of at least one commodity with at least one of said FIPS codes and said MCD codes to determine in which of said at least one taxing [jurisdictions] jurisdiction the commodity is subject to sales taxation.

145. (Amended) A method of [administering] assessing point of sale taxation, said method comprising the steps of:

(a) compiling a tax assessment database for commodities identified by uniform commodities codes, said compiling comprising the steps of:

obtaining postal code data associated with [said desired taxing jurisdictions] at least one taxing jurisdiction;

obtaining latitude and longitude coordinates data associated with said [desired taxing jurisdictions] at least one taxing jurisdiction; and

combining said postal code data and said latitude and longitude coordinates data to establish latitude and longitude coordinates data for jurisdictional boundaries of said [taxing jurisdictions] at least one taxing jurisdiction;

storing said latitude and longitude coordinates data for jurisdictional boundaries of said [taxing jurisdictions] at least one taxing jurisdiction in a master database hosted on a computer-readable medium; and

(b) assessing[, by clients in communication with said master database,] appropriate sales tax for commodities sold by point

of sale transactions in said [taxing jurisdictions] at least one taxing jurisdiction in reliance upon said latitude and longitude coordinates data for jurisdictional boundaries of said [taxing jurisdictions] at least one taxing jurisdiction stored in said master database.

146. (Amended) The method of claim 145 wherein said postal code data for said at least one taxing [jurisdictions] jurisdiction comprises ZIP-related codes.

151. (Amended) A method of administering point of sale taxation, said method comprising the steps of:

(a) compiling a tax assessment database for commodities identified by uniform commodities codes, said compiling comprising the steps of:

obtaining postal code data associated with [said desired taxing jurisdictions] at least one taxing jurisdiction;

obtaining census data associated with said at least one taxing [jurisdictions] jurisdiction and processing said census data such that counties receive a unique Federal Information Processing Standard (FIPS) code and smaller jurisdictions receive a unique Minor Civil Division (MCD) code;

combining said postal code data and said census data to establish FIPS and MCD code data for jurisdictional boundaries of said at least one taxing [jurisdictions] jurisdiction; and

storing said FIPS and MCD code data for jurisdictional boundaries of said at least one taxing [jurisdictions] in a master database hosted on a computer-readable medium; and

(b) assessing[, by clients in communication with said master database,] appropriate sales tax for commodities sold by point

of sale transactions in said at least one taxing [jurisdictions] jurisdiction in reliance upon said FIPS and MCD code data for jurisdictional boundaries of said at least one taxing [jurisdictions] jurisdiction stored in said master database.

152. (Amended) The method of claim 151 wherein said postal code data for said at least one taxing [jurisdictions] jurisdiction comprises ZIP-related codes.



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4862034-687	6. 13 11:19	6. 13 11:19	5' 31"	20	ECM	OK

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COMMENTS:

In re Application of Kevin C. JOHNSON, et al.

Application No. 09/881,533

Filed: June 14, 2001

For: SALES TAX ASSESSMENT, REMITTANCE AND COLLECTION SYSTEM

Atty. Docket No. 11221-011

Group Art Unit: 2161

Examiner: To be assigned

SECOND SUPPLEMENTAL PRELIMINARY AMENDMENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: :
Kevin C. JOHNSON, et al. :

Application No.: 09/881,533 :

Filed: June 14, 2001 :

For: SALES TAX ASSESSMENT, :
REMITTANCE AND COLLECTION :
SYSTEM :

Attorney Docket No.: 11221-011 :

Group Art Unit: 2161

Examiner: To be
assigned

I, John F. Letchford, Registration No. 33,328, hereby certify that this correspondence is being transmitted by facsimile to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, to facsimile number (703) 746-7239 on June 13, 2003.

John F. Letchford

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

SECOND SUPPLEMENTAL PRELIMINARY AMENDMENT

Applicant respectfully requests entry of the following amendments into the above-identified application. Each of the amendments finds full support in the claims, specification and/or drawings as filed.

In the Claims:

Please amend claim 156 as follows:

156. (Amended) A method of assessing point of sale taxation, said method comprising the steps of:

(a) accessing a database containing information relating to commodities identified by uniform commodities codes, said database being hosted on a computer-readable medium and having stored therein:

uniform commodities code information and commodities description information corresponding to said uniform commodities code information gathered from a plurality of merchants; and

tax assessment information for each of said commodities for a plurality of taxing jurisdictions, wherein said uniform commodities code information and said commodities description information are correlated with said tax assessment information; and

(b) assessing appropriate sales tax for commodities sold by point of sale transactions in at least one of said taxing jurisdictions in reliance upon said uniform commodities code information, said commodities description information and said tax assessment information stored in said database.

Please cancel claims 88-155 without prejudice.

Please add claims 157-224 as follows:

157. (New) A method of assessing point of sale taxation, said method comprising the steps of:

(a) compiling a tax assessment database for commodities identified by uniform commodities codes, said compiling comprising the steps of:

gathering uniform commodities code information and commodities description information corresponding to said uniform commodities code information from a plurality of clients;

gathering tax assessment information for each of said commodities for a plurality of taxing jurisdictions;

correlating said uniform commodities code information and said commodities description information with said tax assessment information; and

storing said uniform commodities code information, said commodities description information and said tax assessment information in a master database hosted on a computer-readable medium; and

(b) assessing appropriate sales tax for commodities sold by point of sale transactions in at least one of said taxing jurisdictions in reliance upon said uniform commodities code information, said commodities description information and said tax assessment information stored in said master database.

158. (New) The method of claim 157 wherein said uniform commodities code information is selected from the group consisting of the Universal Product Code (UPC) system, the Universal Service Code (USC) system, the International Standard Book Number (ISBN) system, the International Standard Serial Number (ISSN) system, the Global Service Relation Number (GSRN) system, and the European Article Numbering (EAN) system.

159. (New) The method of claim 157 wherein said tax assessment information comprises an indication of whether a commodity is taxable, non-taxable or tax-exempt.

160. (New) The method of claim 159 wherein, if a commodity is indicated as being taxable, said tax assessment information further includes a tax rate associated with the commodity.

161. (New) The method of claim 157 wherein said taxing jurisdictions comprise local taxing jurisdictions.

162. (New) The method of claim 157 wherein said taxing jurisdictions comprise state taxing jurisdictions.

163. (New) The method of claim 157 wherein said taxing jurisdictions comprise federal taxing jurisdictions.

164. (New) The method of claim 157 wherein said taxing jurisdictions comprise foreign taxing jurisdictions.

165. (New) The method of claim 157 further comprising the steps of comparing a new client database hosted on a computer-

readable medium with said master database, and modifying said master database to include information from said new client database.

166. (New) The method of claim 157 further comprising the steps of comparing a new client database hosted on a computer-readable medium with said master database, and modifying said new client database to include information from said master database.

167. (New) The method of claim 166 further comprising date-tagging said new client database.

168. (New) The method of claim 167 further comprising providing a new client with said date-tagged new client database.

169. (New) The method of claim 166 further comprising providing a new client with said modified new client database.

170. (New) The method of claim 166 further comprising archiving said new client database on a computer-readable medium.

171. (New) A method of assessing point of sale taxation, said method comprising the steps of:

(a) compiling a tax assessment database for commodities identified by uniform commodities codes, said compiling comprising the steps of:

gathering uniform commodities code information and commodities description information corresponding to said uniform commodities code information from a plurality of clients;

gathering tax assessment information for each of said commodities for a plurality of taxing jurisdictions;

correlating said uniform commodities code information and said commodities description information with said tax assessment information;

storing said uniform commodities code information, said commodities description information and said tax assessment information in a master database hosted on a computer-readable medium;

comparing a client database with an archived client database hosted on a computer-readable medium; and

modifying said client database to include updated tax assessment information from said master database; and

(b) assessing appropriate sales tax for commodities sold by point of sale transactions in at least one of said taxing jurisdictions in reliance upon said uniform commodities code information, said commodities description information and said tax assessment information stored in at least one of said master database and said client database.

172. (New) The method of claim 171 wherein said uniform commodities code information is selected from the group consisting of the Universal Product Code (UPC) system, the Universal Service Code (USC) system, the International Standard Book Number (ISBN) system, the International Standard Serial Number (ISSN) system, the Global Service Relation

Number (GSRN) system, and the European Article Numbering (EAN) system.

173. (New) The method of claim 171 wherein said tax assessment information comprises an indication of whether a commodity is taxable, non-taxable or tax-exempt.

174. (New) The method of claim 173 wherein, if a commodity is indicated as being taxable, said tax assessment information further includes a tax rate associated with the commodity.

175. (New) The method of claim 171 further comprising date-tagging said client database.

176. (New) The method of claim 175 further comprising providing a client with said date-tagged client database.

177. (New) The method of claim 171 further comprising providing a client with said modified client database.

178. (New) The method of claim 171 further comprising archiving said client database on a computer-readable medium.

179. (New) The method of claim 171 further comprising modifying said master database to include uniform commodities code information and commodities information from said client database.

180. (New) The method of claim 171 wherein said taxing jurisdictions comprise local taxing jurisdictions.

181. (New) The method of claim 171 wherein said taxing jurisdictions comprise state taxing jurisdictions.

182. (New) The method of claim 171 wherein said taxing jurisdictions comprise federal taxing jurisdictions.

183. (New) The method of claim 171 wherein said taxing jurisdictions comprise foreign taxing jurisdictions.

184. (New) A method of assessing point of sale taxation, said method comprising the steps of:

(a) compiling a tax assessment database for commodities identified by uniform commodities codes, said compiling comprising the steps of:

gathering uniform commodities code information and commodities description information corresponding to said uniform commodities code information from a plurality of clients;

gathering tax assessment information for each of said commodities for a plurality of taxing jurisdictions;

correlating said uniform commodities code information and said commodities description information with said tax assessment information; and

storing said uniform commodities code information, said commodities description information and said tax assessment information in a master database hosted on a computer-readable medium;

(b) accessing said master database by a client, the client inquiring as to the tax assessment characteristics of at least one item of uniform commodities code information;

(c) comparing said at least one item of uniform commodities code information with said master database; and

(d) modifying a client database hosted on a computer-readable medium to include updated tax assessment information from said master database for said at least one item of uniform commodities code information for at least one taxing jurisdiction of interest to the client; and

(e) assessing, by the client, at such time that the client chooses to sell said at least one item of uniform commodities code information in at least one taxing jurisdiction of interest, appropriate sales tax for commodities sold by point of sale transactions in the at least one taxing jurisdiction in reliance upon said uniform commodities code information, said commodities description information and said tax assessment information stored in at least one of said master database and said client database.

185. (New) The method of claim 184 wherein said uniform commodities code information is selected from the group consisting of the Universal Product Code (UPC) system, the Universal Service Code (USC) system, the International Standard Book Number (ISBN) system, the International Standard Serial Number (ISSN) system, the Global Service Relation Number (GSRN) system, and the European Article Numbering (EAN) system.

186. (New) The method of claim 184 wherein said tax assessment information comprises an indication of whether a commodity is taxable, non-taxable or tax-exempt.

187. (New) The method of claim 186 wherein, if a commodity is indicated as being taxable, said tax assessment information further includes a tax rate associated with the commodity.

188. (New) The method of claim 184 wherein said step of accessing said master database is performed via a broadband network.

189. (New) The method of claim 188 wherein said broadband network is the Internet.

190. (New) The method of claim 184 wherein said taxing jurisdictions comprise local taxing jurisdictions.

191. (New) The method of claim 184 wherein said taxing jurisdictions comprise state taxing jurisdictions.

192. (New) The method of claim 184 wherein said taxing jurisdictions comprise federal taxing jurisdictions.

193. (New) The method of claim 184 wherein said taxing jurisdictions comprise foreign taxing jurisdictions.

194. (New) A method of assessing point of sale taxation, said method comprising the steps of:

(a) compiling a tax assessment database for commodities identified by uniform commodities codes, said compiling comprising the steps of:

obtaining uniform commodities code information and commodities description information corresponding to said uniform commodities code information, wherein said uniform commodities code information and said commodities description information are gathered from a plurality of clients;

obtaining tax assessment information for commodities for a plurality of taxing jurisdictions;

obtaining jurisdictional boundary information for said taxing jurisdictions; and

correlating said uniform commodities code information, said commodities description information and said jurisdictional boundary information with said tax assessment information to determine the tax status for said commodities in said taxing jurisdictions; and

storing said uniform commodities code information, said commodities description information, said jurisdictional boundary information and said tax assessment information in a master database hosted on a computer-readable medium; and

(b) assessing appropriate sales tax for commodities sold by point of sale transactions in at least one of said taxing jurisdictions in reliance upon said uniform commodities code information, said commodities description information, said jurisdictional boundary information and said tax assessment information stored in said master database.

195. (New) The method of claim 194 wherein said uniform commodities code information is selected from the group

consisting of the Universal Product Code (UPC) system, the Universal Service Code (USC) system, the International Standard Book Number (ISBN) system, the International Standard Serial Number (ISSN) system, the Global Service Relation Number (GSRN) system, and the European Article Numbering (EAN) system.

196. (New) The method of claim 194 wherein said tax assessment information comprises an indication of whether a commodity is taxable, non-taxable or tax-exempt.

197. (New) The method of claim 196 wherein, if a commodity is indicated as being taxable, said tax assessment information further includes a tax rate associated with the commodity.

198. (New) The method of claim 194 wherein said taxing jurisdictions comprise local taxing jurisdictions.

199. (New) The method of claim 194 wherein said taxing jurisdictions comprise state taxing jurisdictions.

200. (New) The method of claim 194 wherein said taxing jurisdictions comprise federal taxing jurisdictions.

201. (New) The method of claim 194 wherein said taxing jurisdictions comprise foreign taxing jurisdictions.

202. (New) The method of claim 194 wherein said jurisdictional boundary information comprises postal code data for said taxing jurisdictions.

203. (New) The method of claim 202 wherein said postal code data for said taxing jurisdictions comprises ZIP-related codes.

204. (New) The method of claim 203 wherein said ZIP-related codes comprise five-digit ZIP codes.

205. (New) The method of claim 203 wherein said ZIP-related codes comprise ZIP + 4 codes.

206. (New) The method of claim 203 wherein said ZIP-related codes comprise ZIP + 6 codes.

207. (New) The method of claim 194 wherein said jurisdictional boundary information comprises latitude and longitude coordinates for said taxing jurisdictions.

208. (New) The method of claim 207 wherein said latitude and longitude coordinates comprise latitude and longitude data collected while traversing a path via a receiver in communication with satellites of the global positioning system.

209. (New) The method of claim 207 further comprising comparing a physical address related to purchase of at least one commodity with said latitude and longitude data to determine in which of said taxing jurisdictions the commodity is subject to sales taxation.

210. (New) The method of claim 209 wherein said physical address is selected from the group consisting of a billing

address, delivery address, an address of a point of consumption of services, an address of a point of rendering of services, and an address of a service provider.

211. (New) The method of claim 194 wherein said jurisdictional boundary information comprises census data associated with said taxing jurisdictions and processing said census data such that counties receive a unique Federal Information Processing Standard (FIPS) code and smaller jurisdictions receive a unique Minor Civil Division (MCD) code.

212. (New) The method of claim 211 further comprising comparing a physical address related to purchase of at least one commodity with at least one of said FIPS codes and said MCD codes to determine in which of said taxing jurisdictions the commodity is subject to sales taxation.

213. (New) The method of claim 211 wherein said physical address is selected from the group consisting of a billing address, delivery address, an address of a point of consumption of services, an address of a point of rendering of services, and an address of a service provider.

214. (New) A method of assessing point of sale taxation, said method comprising the steps of:

(a) compiling a tax assessment database for commodities identified by uniform commodities codes, said compiling comprising the steps of:

obtaining postal code data associated with a plurality of taxing jurisdictions;

obtaining latitude and longitude coordinates data associated with said taxing jurisdictions; and

combining said postal code data and said latitude and longitude coordinates data to establish latitude and longitude coordinates data for jurisdictional boundaries of said taxing jurisdictions;

storing said latitude and longitude coordinates data for jurisdictional boundaries of said taxing jurisdictions in a master database hosted on a computer-readable medium; and

(b) assessing appropriate sales tax for commodities sold by point of sale transactions in at least one of said taxing jurisdictions in reliance upon said latitude and longitude coordinates data for jurisdictional boundaries of said taxing jurisdictions stored in said master database.

215. (New) The method of claim 214 wherein said postal code data for said taxing jurisdictions comprises ZIP-related codes.

216. (New) The method of claim 215 wherein said ZIP-related codes comprise five-digit ZIP codes.

217. (New) The method of claim 215 wherein said ZIP-related codes comprise ZIP + 4 codes.

218. (New) The method of claim 215 wherein said ZIP-related codes comprise ZIP + 6 codes.

219. (New) The method of claim 214 wherein said step of gathering latitude and longitude coordinates data comprises traversing a path and collecting latitude and longitude data via a receiver in communication with satellites of the global positioning system.

220. (New) A method of assessing point of sale taxation, said method comprising the steps of:

(a) compiling a tax assessment database for commodities identified by uniform commodities codes, said compiling comprising the steps of:

obtaining postal code data associated with a plurality of taxing jurisdictions;

obtaining census data associated with said taxing jurisdictions and processing said census data such that counties receive a unique Federal Information Processing Standard (FIPS) code and smaller jurisdictions receive a unique Minor Civil Division (MCD) code;

combining said postal code data and said census data to establish FIPS and MCD code data for jurisdictional boundaries of said taxing jurisdictions; and

storing said FIPS and MCD code data for jurisdictional boundaries of said taxing jurisdictions in a master database hosted on a computer-readable medium; and

(b) assessing appropriate sales tax for commodities sold by point of sale transactions in at least one of said taxing jurisdictions in reliance upon said FIPS and MCD code data for jurisdictional boundaries of said taxing jurisdictions stored in said master database.

221. (New) The method of claim 220 wherein said postal code data for said taxing jurisdictions comprises ZIP-related codes.

222. (New) The method of claim 221 wherein said ZIP-related codes comprise five-digit ZIP codes.

223. (New) The method of claim 221 wherein said ZIP-related codes comprise ZIP + 4 codes.

224. (New) The method of claim 221 wherein said ZIP-related codes comprise ZIP + 6 codes.

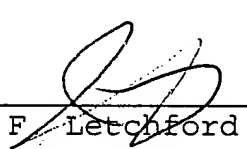
REMARKS

This Second Supplemental Preliminary Amendment supersedes the Supplemental Preliminary Amendment submitted by the undersigned via facsimile to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, to facsimile number (703) 746-7239 on June 12, 2003. The instant amendment cancels an equal number of independent claims (6) and total claims (68) as it adds. Accordingly, no fee is believed to be required for entry thereof. IF, HOWEVER, A FEE IS REQUIRED, THE U.S. PATENT AND TRADEMARK OFFICE IS HEREBY AUTHORIZED TO DEDUCT SUCH FEE FROM DEPOSIT ACCOUNT NO. 501-555.

If the Examiner believes that a telephone interview would be beneficial to advance prosecution of the present application, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

Date: June 13, 2003



John F. Letchford
Registration No. 33,328

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Marked-up Version of Amended Claims as Submitted by
Supplemental Preliminary Amendment Dated June 13, 2003.

156. (Amended) A method of assessing point of sale taxation, said method comprising the steps of:

(a) accessing a database containing information relating to commodities identified by uniform commodities codes, said database being hosted on a computer-readable medium and having stored therein:

uniform commodities code information and commodities description information corresponding to said uniform commodities code information gathered from a plurality of merchants; and

tax assessment information for each of said commodities for a plurality of taxing jurisdictions [at least one taxing jurisdiction], wherein said uniform commodities code information and said commodities description information are correlated with said tax assessment information; and

(b) assessing appropriate sales tax for commodities sold by point of sale transactions in [said] at least one [taxing jurisdiction] of said taxing jurisdictions in reliance upon said uniform commodities code information, said commodities description information and said tax assessment information stored in said database.

DECLARATION OF KEVIN C. JOHNSON

1. I, Kevin C. Johnson, am President of Tax Matrix Technologies, LLC.
2. Tax Matrix Technologies, LLC is a Pennsylvania limited liability company having a place of business at 37 West Avenue, Suite 102, Wayne, PA 19087 and was formerly known as Dryden Matrix Technologies, LLC (hereinafter "Dryden").
3. In the summer and fall of 1999, myself and others at Dryden conceived and began to develop a tax assessment database having the characteristics generally described in ¶ 8, *infra*.
4. I am one of four coinventors of the invention disclosed in U.S. Patent Application Serial No. 09/451,009 (hereinafter " '009 application"). The other coinventors are John O. Ridley, Brendan P. Johnson and William Felker.
5. The '009 application was filed in the United States Patent and Trademark Office ("USPTO") on November 29, 1999.
6. On information and belief, I believe a true and correct copy of the '009 application and its USPTO filing receipt is attached as Exhibit E to the accompanying Amendment/Response submitted concurrently herewith.
7. On information and belief, I believe Dryden is the Assignee of the '009 application.
8. The invention disclosed in the '009 application is a system and method that fulfills a long-felt need in the art of point of sale tax assessment, remittance and collection. In brief, the invention disclosed in the '009 application is an adaptive system including a master database in which tax assessment information from unlimited taxing jurisdictions may be stored, continuously updated and easily matched with virtually any barcode transactable point of sale product or service offered for sale by any wholesaler or retailer that is a participant in or client of the system. The system employs widely available technology, such as Universal Product Code or UPC technology, as the basis for identifying, monitoring and modifying tax status information relating to product and/or services listings in the master database and client databases. A unique advantage of using barcode technology such as UPC as a commodity identifier is that it minimizes the possibility of errors in matching the commodity to its tax status in any taxing jurisdiction. That is, each UPC barcode is uniquely associated with a particular product or service, and the same UPC barcode is used on or in connection with the particular product or service regardless of the taxing jurisdiction in which the product or service is transacted. The system enables merchants who participate in the system to assess, collect and remit sales tax at the point of sale in jurisdictions where they maintain no physical presence, whereby state tax collection authorities may realize increased tax revenues. In addition, the invention results in far superior accuracy in tax assessment in comparison with conventional methods and may be used as an audit tool by state or other tax collection agencies.
9. Over the course of the next several months, myself and others at Dryden began to appreciate that the underlying concepts captured in the '009 application could be applied to point of sale tax assessment, remittance and collection beyond barcode or UPC technology. In

particular, we began to understand that the invention disclosed in the '009 application could be used in connection with other types of uniform commodities code information such as Universal Service Code (USC) codes, International Standard Book Number (ISBN) codes, International Standard Serial Number (ISSN) codes, Global Service Relation Number (GSRN) codes, and European Article Numbering (EAN) codes.

10. During the same time frame, myself and others at Dryden began to conceive and develop new methods and systems for improving the accuracy of determining tax jurisdictional boundaries.

11. The culmination of the efforts of myself and others in the months following filing of the '009 application were the filing of six (6) provisional patent applications during June and July of 2000: U.S. Provisional Application No. 60/211,625, filed June 14, 2000; U.S. Provisional Application No. 60/215,284, filed June 30, 2000; U.S. Provisional Application No. 60/215,285, filed June 30, 2000; U.S. Provisional Application No. 60/216,754, filed July 7, 2000; U.S. Provisional Application No. 60/216,755, filed July 7, 2000; and U.S. Provisional Application No. 60/218,196, filed July 14, 2000. On information and belief, I believe that true and correct copies of those provisional patent applications as filed with the USPTO are attached hereto as Exhibits 1-6, respectively.

12. Since filing of the '009 application, and even prior thereto, Dryden has continued to develop and successfully market its unique tax assessment database as described in the '009 application.

13. I am one of four coinventors of the invention disclosed in U.S. Patent Application Serial No. 09/881,553 (hereinafter "'553 application"). The other coinventors are Brendan P. Johnson, John O. Ridley and Josaphat A. Plater-Zyberk.

14. On information and belief, I believe the '553 application claims priority to each of the provisional patent applications identified in ¶ 11.

15. On information and belief, I believe Dryden Matrix Technologies, LLC is the Assignee of the '553 application.

16. On information and belief, I believe the '553 application was filed in the USPTO on June 14, 2001.

17. On information and belief, I believe the '553 application discloses and claims all of the features described in the '009 application as generally set forth in ¶ 8 as well as the expanded features set forth in ¶¶ 9 and 10 that were disclosed in the provisional patent applications identified in ¶ 11.

The undersigned, being hereby warned that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001, and that such willful false statements may jeopardize the validity of the '553 application or any patent resulting therefrom, declares that the facts set forth in this declaration are true; all statements made of his own knowledge are true; and all statements made on information and belief are believed to be true.

9-23-04
Date

Kevin C. Johnson
Kevin C. Johnson

President
Tax Matrix Technologies, LLC

FILING RECEIPT

OC000000005333563

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Patent and Trademark Office**Address: ASSISTANT SECRETARY AND
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APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
60/211,625	06/14/2000		75	22529-66132A	10		

Dilworth Paxson LLP
3200 Mellon Bank Center
1735 Market Street
Philadelphia, PA 19103-7595

Date Mailed: 08/18/2000

Receipt is acknowledged of this provisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the PTO processes the reply to the Notice, the PTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)Kevin C. Johnson, Villanova, PA ;
Brendan P. Johnson, Villanova, PA ;
John O. Ridley, Schwenksville, PA ;**Continuing Data as Claimed by Applicant****Foreign Applications**

If Required, Foreign Filing License Granted 08/17/2000

**** SMALL ENTITY ******Title**

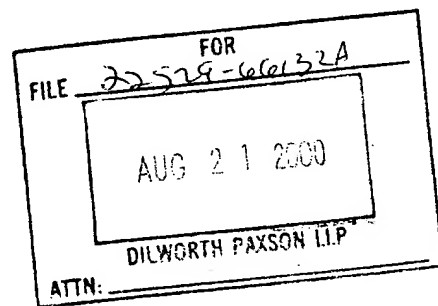
Adaptive system for applying sales taxes over the internet

Preliminary Class

Data entry by : SNEED, LISA

Team : OIPE

Date: 08/18/2000



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Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15

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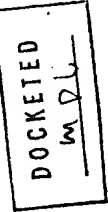
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Applicant: JFL

Attorney: A/ZA

Docket No.: 22529-66152A

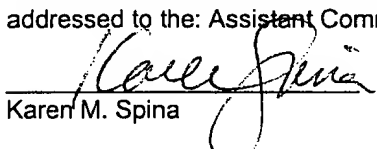
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Kevin C. Johnson, Brendan P. Johnson and John O. Ridley

For: ADAPTIVE SYSTEM FOR APPLYING SALES TAXES OVER THE INTERNET

CERTIFICATION UNDER 37 C.F.R. 1.10

I hereby certify that this correspondence and the documents referred to as attached therein are being deposited with the U.S. Postal Service on June 14, 2000, in an envelope as "EXPRESS MAIL POST OFFICE TO ADDRESSEE" service under 37 C.F.R. 1.10, Mailing Label Number EL485847965US addressed to the: Assistant Commissioner for Patents, Washington, DC 20231.


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BOX PROVISIONAL PATENT APPLICATION
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COVER SHEET FOR FILING PROVISIONAL APPLICATION
(37 CFR § 1.51(c)(1))

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT.
THE FOLLOWING COMPRISES THE INFORMATION REQUIRED.

NAMES AND RESIDENTIAL ADDRESSES OF THE INVENTOR(S):

1. Kevin C. Johnson
GIVEN NAME MIDDLE INITIAL LAST (FAMILY) NAME
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2. Brendan P. Johnson
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3. John O. Ridley US
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9 Barley Sheaf Lane, Schwenksville, PA 19473 US
RESIDENTIAL ADDRESS CITIZENSHIP

TITLE OF THE INVENTION: ADAPTIVE SYSTEM FOR APPLYING SALES TAXES OVER THE INTERNET

☐ A power of attorney accompanies this cover sheet.

This invention was made by an agency of the United States Government, or under contract with an agency of the United States government (37 CFR § 1.51(c)(1)(viii)):

☒ No.

☐ Yes. The name of the U.S. Government agency and the government contract number are: _____

IDENTIFICATION OF DOCUMENTS ACCOMPANYING THIS COVER SHEET:**Required:**

☒ Specification No. of Pages 20

☒ Drawings No. of Sheets 10

Additional documents:

☐ Claims No. of Claims

☐ Abstract ☒ Appendix

☒ Small Entity Statement

☐ Assignment

FEE:

The filing fee for this provision application is:

☐ Other than small entity \$150.00

☒ Applicant is a small entity \$ 75.00

☒ The statement(s) that this is a filing by a small entity under 37 CFR §§ 1.9 and 1.27 are attached.

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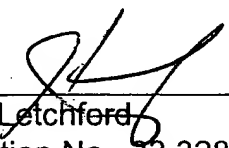
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Date: June 14, 2000



John F. Letchford
Registration No. 33,328

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Attorney Docket No: 22529-8813 2A

PROVISIONAL

**STATEMENT CLAIMING SMALL ENTITY STATUS
(37 CFR §§ 1.9(f) and 1.27(b)) - INDEPENDENT INVENTOR**

Applicant, Patentee or Identifier: Kevin C. Johnson, Brendan P. Johnson, John O. Ridley

Application Serial No. or Patent No.: Not yet assignedFiled or Issued: HerewithTitle: ADAPTIVE SYSTEM FOR APPLYING SALES TAXES OVER THE INTERNET

As below-named inventor, I hereby state that I qualify as an independent inventor as defined in 37 C.F.R. § 1.9(c) for purposes of paying reduced fees to the U.S. Patent and Trademark Office described in:

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I have not assigned, granted, conveyed, or licensed, and am under no obligation under contract or law to assign, grant, convey, or license, any rights in the invention to any person who would not qualify as an independent inventor under 37 C.F.R. § 1.9(c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 C.F.R. § 1.9(d) or a nonprofit organization under 37 C.F.R. § 1.9(e).

Each person, concern, or organization having any rights in the invention is listed below:

☒ No such person, concern, or organization exists.

Separate statements are required from each named person, concern, or organization having rights to the invention stating their status as small entities. (37 CFR § 1.27).

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time or paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR § 1.28(b)).

Kevin C. Johnson
NAME OF INVENTOR

Kevin Johnson
SIGNATURE OF INVENTOR

6/14/00
DATE

Brendan P. Johnson
NAME OF INVENTOR

Brendan Johnson
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DATE

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Adaptive System for Applying Sales Taxes over the Internet

Field of the Invention

The present invention relates in general to systems for applying the correct sales tax base and rate for Internet and traditional retail transactions, accepting sales tax exemption certificates, providing real-time reports to state and local taxing jurisdictions and retailers, and finally for creating the back office system so that the correct sales tax is remitted to the proper taxing authority.

Background of the Invention

E-commerce sales are replacing a growing percentage of sales made by "brick and mortar" retailers. The Internet and the remote selling nature of the Internet threaten to undermine the different local, regional, and state taxation models. The meteoric rise of e-commerce and web retailing is further reinforcing the trend toward direct marketing and remote selling that has been established by the mail-order and television home-shopping channels, such as QVC.

The projections for the growth of E-commerce are truly historic. Forrester Research estimates that, under an optimistic growth scenario, commerce over the Internet may reach as high as 2.3 trillion by 2003 or 5% of all global sales. Even in a much more conservative growth scenario, commerce over the Internet will still total almost \$1.8 trillion by the year 2003.¹ In the United States, sales to both businesses and consumers via the Internet are projected to increase from \$50 billion in 1998 to \$1.5 trillion by 2003.² The growth of e-commerce has been fueled due to the unique advantages for consumers that it has over traditional means of commerce. These advantages include greater purchasing convenience, larger variation in purchasing choices, increased product and service information, and, usually, lower prices.

¹ "Forrester Estimates Worldwide Internet Commerce"; "Business and the Internet."

² "Twas the Season for E-Splurging," *Business Week*, January 18, 1999, p. 40; "On-Line Shopping," *USA Today*, March 1, 1999; "Amazon.com," p. 108; Morrisette, Bluestein, and Maraganore, "Consumers Digital Decade" (on consumer commerce); George Anders, "Click and Buy: Why – and Where – Internet Commerce is Succeeding," *Wall Street Journal*, December 7, 1998 (on business commerce).

These growth projections for e-commerce pose a serious threat to state and local jurisdictions' ability to maintain and fund their public services. While the consumers to whom these e-commerce retailers sell their goods have an obligation to pay use tax on the out-of-state goods they purchase, there is currently no consistent enforcement mechanism for the collection of such taxes and, accordingly, compliance by consumers is relatively rare. State and local taxes account for over \$700 billion in revenues in the United States, or about 45% of all tax dollars raised in the country.³ This tax revenue stream is used to support basic public services, including state and local fire and police operations, educational facilities, and road/bridge infrastructure. Since the majority of web retailers sells remotely and thus, does not collect sales tax, the Internet poses a direct challenge to states and local jurisdictions' ability to maintain their public services. It is estimated that in the year 2003, the states will lose nearly \$11 billion in sales tax revenue due to the increasing amount of commerce being conducted over the Internet.

The advantages for retailers engaging in electronic commerce have also created enormous challenges to taxing jurisdictions that depend on antiquated and complex methods of taxing goods and services. Web retailers do not have to maintain costly "brick and mortar" retail outlets. Rather, their business model supports a remote seller concept that is almost identical to mail order business model. A remote seller is an entity that sells goods or services into a jurisdiction in which they do not have physical presence, or nexus. Taxing authorities cannot presently require remote (out-of-state) retailers to collect sales tax for their jurisdiction in the absence of nexus because the United States Supreme Court has held, in a series of decisions (including *Quill Corp. vs. North Dakota*), that such an effort would impose an undue burden on the retailers, in violation of the due Process Clause and Commerce Clause of the U.S. Constitution, absent Congressional action directly authorizing the states to engage in such activity. More specifically, it is the *Quill* case that establishes nexus as the determinative criteria in deciding whether a retailer is required to collect sales tax for out-of-state transactions.

Other factors playing a role in this situation are i) the fact that unfair competition exists in that a traditional "brick and mortar" retailer is clearly subject to a taxing authority's taxes (because of physical presence) while an e-commerce retailer (without nexus) selling to the same customer is able to offer the same product or service without the burden of imposing tax or the internal administrative costs of collecting and remitting the tax and ii) the vast differences among taxing authorities in terms of what transactions are subject to tax within a particular taxing authority, what exemptions or exclusions are available to particular purchasers within a taxing authority and whether a taxing authority places the burden of the tax on where the retailer is located or where the purchaser is located.

One solution to these problems that has been suggested is the development of a uniform sales/use tax code. Such a solution would seem to be highly unlikely considering the vast differences among the many taxing authorities. For example, there are over 7,500 local taxing jurisdictions (such as counties, townships, boroughs and parishes) in addition to the 45 states and the District of Columbia, which impose their sales tax at the rate of their choice. It would be a political impossibility to have all of these jurisdictions agree to

³ Karl Frieden, *Cybertaxation*, (Chicago, IL: CCH Incorporated, 2000), 57.

either a uniform tax rate or a uniform tax code. It is the sovereignty of these jurisdictions that allows for these jurisdictions to attract and develop economic value by providing tax exemptions for specific products and services in certain areas. For example, in the state of Pennsylvania, there has been and will continue to be a strong lobby effort in support of the chocolate industry. (Hershey is headquartered in PA while M&M Mars has expansive operations in PA, thus both companies create jobs and economic value for the state of PA). Because of this, it is safe to assume that chocolate will never be taxable in Pennsylvania and that the state would never forfeit its sovereignty in support of a uniform tax code in which chocolate is taxable in all states that impose sales tax. This is just one example of thousands across the United States.

The Internet Tax Freedom Act ("ITFA") also has an impact on the current ability of state and local governments to tax e-commerce transactions, although not as great a role as has been portrayed in the popular press. ITFA imposed a three-year moratorium on i) taxes on Internet access fees (e.g. America Online monthly access charges); and ii) multiple or discriminatory taxes on e-commerce. The prohibition on the taxation of access fees is not relevant to the issue of taxation of e-commerce. The prohibition on multiple taxes simply provides that an e-commerce transaction cannot be taxed more than once (e.g., by both the state where the retailer is located and the state where the purchaser is located). Finally, the prohibition on discriminatory taxes prohibits taxes on e-commerce that are not imposed on the same party (e.g., retailer or purchaser) and at the same rate by states or local governments on purchases of the same goods made through other means. The definition of "discriminatory tax" further provides that the mere fact that an e-commerce retailer's website may be accessed in a given state or that makes use of a server in a given state cannot form the basis for nexus in that state.

Large traditional retailers, such as CVS, have created websites under a different corporate entity for retail sales over the Internet. CVS, as well as numerous other traditional retailers would favor a system in which consumers who purchase items on line could also return items to the local CVS for convenience. However, doing so would create nexus obstacles and lead to unfavorable audit attention from states. However, state and local taxing authorities have long believed that the promulgation of a "zero burden" mechanism for collection of sales taxes from out-of-state retailers would alleviate the concerns voiced by the Supreme Court and permit collection of sales taxes from out-of-state retailers. Management believes that the inventor is the first to have begun development of a zero-burden system for Internet sales tax collection and remittance.

Neither the ITFA nor the U.S. Supreme Court prohibit state and local governments from imposing an obligation on retailers to collect sales tax for out-of-state (other than those related to access fees) if the taxes can be collected in a manner that neither imposes a burden on the e-commerce retailer nor discriminates against such retailer. **Inventor Matrix Technologies, LLC offers such a solution.** Because there is no prohibition for the states to collect in such a manner, the states have begun to rally together in search of a solution to this problem. The Streamlined Sales Tax Project is an effort created by the various state governments. (Refer to www.streamlinedsalestax.org for ongoing information). The purpose of the project is to develop a new, simplified sales tax system

that meets the needs of the existing and future economy. The group is expected to release a Request for Proposal in late June 2000 with an expectation that outside retailers (i.e. Inventor) will respond with proposals within 30 days of that date.

The Streamline Sales Tax Project

The Streamline Sales Tax Project mission is to develop measures to design, test and implement a system that radically simplifies sales and use taxes. The project's steering committee and work groups are comprised of numerous state and local tax officials across the country. The committee has created a Voluntary Pilot Program by which voluntary e-commerce retailers sign up as voluntary collectors of sales tax. These voluntary collectors would remit the proper sales tax collections to the states in which the product or service was delivered. To date, fifteen (15) state legislatures have passed legislation to allow their respective state taxing authorities to fully participate with the voluntary program and another fifteen (15) states are "Observer States," or states that have not yet received legislative approval for one reason or another. The participating states are as follows:

Iowa	Michigan	South Dakota
Kansas	Minnesota	Tennessee
Kentucky	Missouri	Utah
Louisiana	Nebraska	Wisconsin
Maryland	North Carolina	Wyoming

North Carolina, Wisconsin, Kansas, Alabama and Michigan will be the first five states to issue the Request For Proposal or RFP. North Carolina is the lead state in issuing a RFP, which it expects to post on its website in the next two weeks. Companies will have thirty days to respond to the RFP. Inventor will respond with a proposal.

Summary of the Invention

INVENTOR'S INTERNET TAX SOLUTION

The inventor has developed an adaptive system that would collect taxes for transactions based on the location of the purchaser, thus alleviating the burden of sales tax collection on the part of the retailer. This system would not require the imposition of any new taxes, but instead would simply provide a more efficient collection mechanism for existing states. Moreover, the invention would not run afoul of ITFA, as it would provide for taxation in a single location (avoiding the prohibition of multiple taxes) and would allow collection of taxes on e-commerce at exactly the same rate as on other transactions (avoiding the prohibition on discriminatory taxes). **The key to the invention is that it permits retailers to collect appropriate sales taxes without imposing any significant burden on them.** Retailers would be required to: send product codes and their associated UPC's, service codes and updates that are used on their website; provide inventor with the appropriate routing information of the bank account through which they receive credit card payments; and add a unique line of source code used to communicate the necessary information from their website to the inventor's proprietary database. Figure 2 illustrates the overview of the adaptive system. Figure 3 illustrates the sequential order of the adaptive system.

The tax determination, collection and remittance burden would fall on the shoulders of the inventors as shown in the following example:

EXAMPLE : Joe E. Shopper goes online and purchases \$100 of Listerine from CVS.com with his AMEX card for delivery to his house at 123 Main Street in Philadelphia, PA.

Step 1: CVS.com imports quasi-transparent tax code into its website so that their site can transparently communicate with the inventor's proprietary database as illustrated in Figure 1. This is done once by the e-retailer and would entail a simple import of code into the website's source code.

Step 2: Joe E. Shopper shops the CVS.com site and then electronically selects (places) his choices in to the digital shopping cart and also enters his address.

Step 3: Two scenarios exist for Step 3:

- A. Joe is a typical consumer
- B. Joe is purchasing goods from CVS for an exempt reason.

Under scenario A, Joe E. Shopper then clicks the "Subtotal" button which causes triggers communication between Joe E. Shoppers's web browser, CVS.com's website and Dryden's proprietary database to communicate. The Universal

Product Codes (or associated product codes) of the items selected and Joe's address are sent electronically to the inventor's database.

Under scenario B, Joe E. Shopper is a purchaser for his employer, a charitable institution that can purchase goods exempt from sales tax in Pennsylvania. The website provides a box in which Joe E. Shopper can check a box if the item(s) are exempt from sales tax (See diagram below). Joe E. Shopper checks the box and then clicks the "Subtotal" button which causes the inventor's proprietary search engine to perform a reflex lookup outlining in a digital table, the goods that Joe E. Shopper had selected. This table is then electronically fired back to Joe's web browser which is pointed on CVS.com's website. The table includes the items and two boxes aligned next to each item. The boxes are labeled taxable and non-taxable. If non-taxable is checked next to each item's box, then a drop down list menu of sales tax exemptions pops up which correspond to the destination of the goods, or in this case, the state in which the charitable institution resides. Once Joe E. Shopper has submitted the appropriate exemption information, then the information is sent to the inventor's database for further analysis.


Step 4: Inventor's proprietary database runs a series of logic search engine analysis to determine the tax status and tax rate of the items selected. The rate is applied using a zip + 4 commercial mapping database. If Joe's zip code is flagged due to the inaccuracy of applying the proper rate for his jurisdiction, then a logic based latitude and longitude coordinate driven rate adjuster is used as the next step in applying the proper rate. See Figure 4 for an illustration of the mapping logic and jurisdiction latitude and longitude mapping sequence (i.e., the entire country would be tax-mapped by latitude and longitudinal boundaries of each taxing jurisdiction with corresponding rates). The inventor's tax accumulator then tabulates the appropriate tax and sends this information back to CVS.com.

Step 5: CVS.com then computes the total sales price. In this case the total would be \$107 (\$100 for the Listerine, \$6 for PA state sales tax and \$1 for Philadelphia sales tax.)

Step 6: Joe E. Shopper clicks the "Purchase" button on the website. Ordering information is sent to AMEX (or Visa, Mastercard, Discover, etc.) while CVS.com's retailer ID number, the tax amount(s), and taxing jurisdiction ID number(s) are simultaneously sent to the inventor's tax accumulator database and recorded by an internally-generated transaction number only (purchaser's information would be transparent throughout the entire process in order to alleviate concerns about consumer privacy issues).

Step 7: Inventor electronically wires Automated Clearing House (ACH) information to the financial institution that transfers aggregate day's tax due from CVS.com to inventor's escrow account. Thirty-five (35) days later, the inventor would transfer the appropriate tax funds to each respective taxing jurisdiction's escrow account. The inventor, as the trusted third-party collector, would benefit from the float earned on taxes held until the monthly disbursement date.

Value Proposition

 This patent-pending solution provides a real-time adaptive computerized tax system of assessing and determining the proper sales tax of goods and service sold over the Internet. The system has the capacity to conduct interactive online and real time analysis of all products and services and their applicable sales tax rates. This system would allow the states to collect those taxes lost to Internet transactions while remaining transparent to the retailer and to the consumer. In general, the inventor solution answers the states' needs because it (1) is burden-free to the web retailer, (2) allows all state and local taxing jurisdictions to maintain their sovereignty, (3) can accurately determine the taxability of any good by UPC or product code, (4) can accurately determine the appropriate tax rate by state and municipality down to the address of the ship-to address, (5) can contend with those purchasers with tax exemption certificates by use of a exemption acceptor and tracking module, and (6) can seamlessly collect and remit the proper taxes to the appropriate jurisdictions while maintaining an audit trail for every taxable Internet transaction.

Investor's Company Background

In 1997, the management of the inventor founded a sales and use tax consulting firm, the Dryden Advisory Group, LLC ("Advisory Group") to capitalize on the unique market opportunity to help businesses recapture overpayments of sales and use taxes and to ensure that these overpayments are not repeated in the future. Since the firm's inception, management has surpassed even its own most ambitious projections for financial performance as well as market acceptance. Despite this short time period and entrenched competitors such as the Big 5 accounting firms, current management has been able to secure relationships with a number of Fortune 500 firms as well as many middle market firms and has significantly penetrated the market in the Pennsylvania, New Jersey, and New York area.

In July 1999, the management of Dryden Advisory Group, LLC formed Dryden Matrix Technologies, LLC (the inventor) to provide "brick and mortar" retailers with: 1) an automated method of accurately determining the taxability of their products under applicable state sales and use tax laws, rules, and regulations by way of their proprietary database - known as MatrixMasterTM - containing over 2,500,000 UPCs, their item description, and each item's taxability by state, (2) a quarterly service that helps them to maintain an up-to-date tax matrix of the UPC for products that they sell to customers, and (3) an audit trail for the retailer to use in defending themselves against a sales tax audit.

Dryden's service introduces automation into an otherwise manual product tax classification process, which not only increases retailers' and state auditors' efficiency, but also greatly decreases their tax exposure by improving the accuracy of the tax coding and maintenance process for retailers and by increasing compliance for states. Dryden filed a patent on the MatrixMasterTM service in November of 1999 and is currently

waiting for a response from the U.S. Patent Office. Currently, to the Dryden's knowledge, there does not exist a master list of all UPCs that indicates the taxability of the specific items.

The first eight months of Dryden's existence was spent developing the MatrixMaster™ database. During the last four months, the Dryden has raised capital and has begun to actively market the MatrixMaster™ service to retail "brick and mortar" clients. In that short time, Dryden has secured several contracts and is in the process of securing additional contracts.

These contracts include:

- i) *A two-year contract with Rite Aid for 33 states providing \$175,000 of one-time set-up fees and \$180,000 of annual maintenance fees;*
- ii) *A three-year contract with Pathmark for 3 states providing \$30,000 in one-time set-up fees and \$18,000 of annual maintenance fees;*
- iii) *A three-year contract with Clemens Markets providing \$7,500 in one-time setup fees and \$6,000 of annual maintenance fees;*
- iv) *A pilot project for NetGrocer.com providing \$4,000 in one-time setup fees*
- v) *A three-year contract with King Cullen providing \$7,500 in one-time setup fees and \$7,500 in annual maintenance fees;*
- vi) *A three-year contract with Genuardi's providing \$14,000 in one-time setup fees and \$8,400 in annual maintenance fees; and,*
- vii) *A contract with Giant (a subsidiary of AHOLD) to review their New York UPC list prior to their audit for a fee of \$12,000. Giant management indicated to Inventor that they view this engagement as a pilot test as to whether or not to purchase a three-year contract for the MatrixMaster™ Service for all states where it conducts business (at \$15,000 per state for upfront fees and \$9,000 per state of annual maintenance fees). As a result of the company's services, Giant management made over 980 changes to its New York tax matrix.*

In addition, the company is conducting a pilot assignment with K-Mart in which our research division is matching K-Mart's 2.4 million UPC codes to our existing MatrixMaster™ database and researching any non-matches. Contracts for the Grand Union Company and Aldi, Inc., are outstanding and are in their respective legal departments pending approval. The company has also scheduled introductory meetings with Target, Drug Emporium, SuperValu, Redners, BJ's Wholesale Clubs and Costco all of which will take place during June 2000. In addition, the company is in discussions with NCR in an effort for them to begin co-marketing their scanning and cash register systems with our MatrixMaster™ Service.

In addition to marketing the MatrixMaster service to retailers, the Dryden's proprietary database and service has received very positive feedback from top tax officials for several states. Dryden is in discussions with these states to determine how best to utilize the database as a tool to enhance their auditing results for the retail sector. Dryden believes that this opportunity would not only provide an additional source of revenue, but would

also greatly increase the credibility of our service from the retailer's perspective. As such, it would help to encourage prospective clients in these states to purchase our services.

Overview of the Sales Tax Burden

Sales tax, currently the single largest source of state and local revenue in the U.S., is a unique tax that imposes the principal burden of collection on third-party retailers rather than on consumers or tax agencies. Sales tax is imposed by 45 out of the 50 states in the U.S. (Alaska, Delaware, Montana, New Hampshire, and Oregon do not charge sales tax) and in the District of Columbia. Because the tax is imposed on each taxable purchase made by consumers, the onus is on "brick and mortar" retailers to correctly interpret the regulations as to the taxability of the sale, to apply the appropriate rate, to collect the proper taxes, and then to report and remit the proper tax to the taxing authority. However, as mentioned earlier, for *remote transactions*, this onus does not exist due to the Supreme Court ruling in the Quill Case.

For brick and mortar retailers, there are significant risks and compliance costs in fulfilling their legal obligation. Many state sales tax regulations are vague and complicated, leaving significant room for both error and misinterpretation by the retailers. For example, juices containing more than 15% *natural* juices are not taxable in Washington D.C. and juices containing more than 25% *natural* juices are not taxable in Pennsylvania. In New York, *large* marshmallows are considered confectionery items and are thereby taxable while *miniature* marshmallows are considered a food item and are non-taxable. Often, the retailer's tax staff must use their judgment in determining taxability, thereby leaving the retailer potentially vulnerable to an audit assessment. The likelihood of a large audit assessment is very real given that most major retailers are on a continuous audit cycle that automatically generates an audit approximately every three to four years. Furthermore, should a retailer fail to collect the required sales tax from a consumer, the retailer is responsible for reimbursing the state for this uncollected tax as well as any related interest and penalties.

The invention utilizes proprietary technology to solve the burdensome sales tax collection responsibility for remote sellers who have no nexus in a particular jurisdiction in which they sell. The technology is comprised of individual software and database modules acting in coordination, which deliver the final tax status of a particular good or service sold over the Internet. Furthermore, the technology also allows entities such as charitable institutions, the ability to purchase goods or services under an exempt status. Finally, the technology enables Inventor to send electronic reports to state and local jurisdictions, the web retailer the US Commerce Department. These individual modules will be described individually as well as a group in this patent application.

The present invention provides a real-time adaptive computerized tax system of assessing and determining the proper sales tax of goods and services sold over the Internet. The system has the capacity to conduct interactive online and real time analysis of all

products and services, exemptions and exemption status, and applicable sales tax rates. The system has the ability to interact with hundreds of thousands of web retailers performing transactions. Additionally, the system has the capacity to accept retailers' customers' exemption numbers, to recalculate tax, to provide specific interactive tax matrix choices for specific items for purchase, and to provide a real-time audit report for specific web retailers and state and local jurisdictions to view and download. The invention also has the ability to accept changes in rates, base, audit trail information and exemption certificate information.

The system includes a Universal Product Code (UPC) MatrixMaster™ database, sales tax rate database and rate override and decision logic, exemption database and exemption decision logic and specific audit tool engines. The system also includes the ability to accept download of UPCs and their associated product conversions (the retailers product conversions from the UPC), services codes and their Universal Source Code (USC) conversions, as well as the ability to accept changes of sales tax rates and product and/or service exemption changes from any taxing jurisdiction with the capacity to make real-time changes. The system functions in a way so that all web or brick and mortar retailers that utilize product or service identification numbers or barcode technology at their point of sale transaction or on their website can charge the sales tax without the burden of collection responsibility or sales tax audit liability. The system specifically calculates the appropriate tax, if any, for any electronic transaction. The system allows specific entities the ability to specify prior to final purchase which goods and services they choose to buy under an exempt status. The system allows the online consumer to visually observe the final tax calculation prior to final purchase. The system applies a transaction number to all sales and allows the web or brick and mortar retailer the ability in real-time to view any such information. The system also allows the appropriate taxing jurisdiction the ability to view the necessary information for transactions in which a specific entity inputs an exemption number where delivery of that good or service falls into their taxing jurisdiction. The system allows web retailers the ability to debit an Automated Clearing House (ACH) tax account for goods that are returned or services.

The system and not the web retailers centrally compile tax base information, rates, exemptions, exemption numbers, sales tax identification numbers and transaction numbers. Thus, participants of the system, including the web and brick and mortar retailers, jurisdictions, and online consumers are not hampered by having to periodically or permanently employ or contract with tax professionals to monitor changes in tax law in numerous taxing jurisdictions and independently bear the costs of such efforts. Also, state agencies do not have to bear the cost of random sampling audits of taxpayers. Rather, the system provides state tax authorities with an audit trail for entities claiming an exemption.

The master database can modify its own content to reflect any additions of newly offered sales tax rates, exemptions, and universal product codes or services codes as well as the ability to discontinue goods, services, reports, or exemptions no longer offered.

Brief Description of the Drawings

The invention will become more readily apparent from the following description of preferred embodiments thereof shown, by way of example only, in the accompanying drawings, wherein:

Figure 1 is a simple schematic view of a presently preferred process by which a web retailer downloads the necessary communication software from the inventors web site. The communication software will be used to electronically send the vital consumer information so that the inventor can process and determine the tax status of the consumers purchase choices.

Figure 2 is a schematic view of the infrastructure of the adaptive tax system by which the consumers and retailers transaction information is sent electronically to the multiple master tax database as well as the flow of sales tax to the financial institutions of the proper taxing authorities.

Figure 3 is a simple table illustrating specific steps of the entire adaptive system.

Figure 4 is a schematic view of a presently preferred process by which a digital map is outlined with GPS or latitude and longitude degrees.

Figure 5 is a schematic view of a presently preferred process by which the transaction page of a typical web retailer illustrates the specific area for manual consumer input of exemption claim information.

Figure 6 are two schematic views of a presently preferred process by which the adaptive system relies on search and extraction technology in order to illustrate taxing information.

a. More specifically, 6a is a schematic view of a table that represents the taxable status of the items selected by a consumer which is shown to the consumer after the submit button has been depressed and prior to the complete transaction materializing.

b. More specifically, 6b is a schematic view of a table that pops up after a consumer selects goods or services for exempt use. The table also indicates the tax status choice for each selection and a drop down menu of state exemptions based on the customer's ship to address.

Figure 7 is a schematic view of a presently preferred process which provides an overview which the master database of the adaptive system according to the invention is compiled and the master database and all archived client databases are maintained.

Figure 8 is a schematic view of a presently preferred process by which a new client's point of sale UPC database is processed by the adaptive system according to the invention.

Figure 9 is a schematic view of a presently preferred process by which an existing client's UPC database is updated and maintained by the adaptive system according to the invention.

Figure 10 is a simplified schematic view of a presently preferred process by which an existing client may seek information on new UPCs.

Figure 11 is a schematic view of a presently preferred process by which a tax authority can view the transaction summary of a single exempt transaction.

Detailed Description of the Invention

The adaptive system of the present invention must reside on a multiple server environment with massive parallel processors and multiple broadband Internet connections. The adaptive system must reside on a number of redundant relational databases capable of real-time delivery of information and have the ability to store and deliver thousands of multiple sales tax decisions while simultaneous correspondence with multiple retailers' websites. The details of the systems hardware will not be described in detail since they are commercially available and thus, are not included in this invention.

To initiate communication from the retailer to the inventor's website, the retailer must first add the appropriate software code to their website as illustrated in Figure 1. This code must be added to the source code used to build the site of the web retailer. Once part of this code used to establish the link is an IP address or Uniform Resource Locator (URL). Since website designers use numerous languages to create websites, the free download of code from the inventor's website is written in all programming languages that are currently used to create websites. Web retailers also have the option of writing their own code to communicate with Inventor's website if this presents itself to be a less burdensome alternative.

This code triggers the web retailer's website to send the customer address from their web browser, product and/or code information at the same time the credit card information of the consumer is verified by the financial institution of the cardholder.

In order to trigger final tax payment to the proper taxing authority, web retailers must also set up an Automated Clearing House (ACH) debit/credit account with the financial institution of their choice. The routing information must be sent to the inventor's website since the invention utilizes these numbers to communicate the appropriate transaction information to the proper taxing authorities and financial institutions.

Module 1 MatrixMaster™

The adaptive system of the present invention may reside on any dedicated or general purpose computer, work station, or server having sufficient memory storage and processing speed capabilities to support any operating system and executing any computer language and software to efficiently carry out the essential functions prescribed herein. As such, the details of the adaptive system's operating hardware and software will not be described in detail since they are commercially available and do not, per se, form a part of the present invention. For example, although not limited thereto, the adaptive system may function as a user-interactive and, preferably, client-interactive network based server and may reside on an IBM® compatible or other personal computer capable of running software commercially available under the name Microsoft® Office 2000 Professional produced by Microsoft Corp. of Redmond, WA. Under all circumstances, however, the adaptive system and its supporting hardware and software should be able to permit compilation, storage, and modification of master and client databases including potentially vast numbers of barcode designations, a product or service description associated with each barcode designation, and tax assessment information associated with each barcode and its corresponding product or service (i.e., whether an item is taxable, non-taxable or tax-exempt and, if taxable, the appropriate tax rate therefore) in any taxing jurisdictions of potential interest to the adaptive system's owner, user, or clients. For simplicity of description and brevity of discussion,

Figures 7 through 10 generally reference tax assessments based on state law and in connection with UPC-transacted goods or services. It will be understood, however, that the adaptive system according to the invention may also be programmed to compile and process information relating to goods or services transacted by other barcode technologies, as well as tax assessment information for any local, federal and/or foreign taxing jurisdictions.

Thus far, tax specialist employees or contractors of a specific merchant have compiled point of sale tax status information. The information obtained is made available only to that merchant and related exclusively to its particular goods and/or services and encompassed only the tax jurisdictions within which it conducts business. A significant distinction and advantage of the tax status information gathering and processing functions performed by the adaptive system of the present invention is that it enables two or more merchants to combine their respective barcode-based tax status databases to produce a collective master database whose expanded content may be utilized by and for the benefit of all of the participating merchants. In the past, the cost and time burdens of compiling and maintaining, in near real time, a comprehensive tax status database for individual merchants operating in multiple tax jurisdictions have been prohibitive.

In this light and referring to Figure 7, there is shown in schematic form a presently preferred process or method by which a master database of the adaptive system according to the invention is compiled and the master database and all client databases are maintained. As previously mentioned, the adaptive system of the present invention comprises a master database, which is identified in the drawings by reference numeral 10. In amassing the content of master database 10, operators or users of the adaptive system

compile barcode and related point of sale goods and/or services information from at least two merchants in addition to relevant tax assessment information encompassed in the master database for those goods and/or services. In the illustrated example, at step 12 the adaptive system may receive from the merchants or clients a plurality of UPCs and the associated goods/services descriptions for some or, more likely, all of the goods and/or services that may be offered for sale by two or more merchants. The merchants or clients may provide the requisite information by any suitable medium such as ASCII format, the World Wide Web, television, Internet appliance and/or web browser, handheld and/or Personal Digital Assistant Devices (e.g., secure site, FTP, encrypted database, e-mail), disk (e.g., floppy, CD, zip), tape or cartridge, or by direct connection (e.g., perform the operation at the client location with a laptop computer).

Concurrently with and after receiving the UPC and goods/services descriptions from the clients, operators of the adaptive system conduct research to gather tax assessment information for the identified goods and services from numerous reliable sources including, without limitation, state tax statutes, regulations, case law and administrative rulings, as well as trade journals, periodicals, and other reliable print, broadcast and on-line sources. All of the gathered tax assessment information (including whether an item is taxable, non-taxable or tax exempt and if taxable, the appropriate tax rate) is then correlated for each barcode and each good or service in each taxing jurisdiction and stored in master database 10.

At step 14, each specific client database is date-tagged and saved. At the moment of saving and date tagging, the client's bar-coded point of sale goods and/or services are automatically positioned into compliance with the prevailing tax laws of the taxing jurisdictions in which it does business. The purpose of date-tagging the clients' databases is that it establishes for each client a date upon which a client may rely in the event the client's point of sale tax records are later audited. Upon date tagging and saving, the respective client files are archived at step 16, a copy of the client database is returned to the client at step 18 and the content of each client database becomes a subpart of the body of information which makes up master database 10.

Tax research conducted in support of the adaptive system is preferably an ongoing process. Accordingly, as tax assessment changes are discovered for any bar-coded product or service in the master database 10 in any taxing jurisdiction included in the master database, those changes are automatically entered into the master database and to all relevant client databases. The tax research may occasionally unearth certain point of sale goods or services whose tax status is uncertain in one or more taxing jurisdictions of interest to the client.

In such "gray area" situations, the master database may be programmed to assign a "taxable", "non-taxable" or "tax-exempt" status and a tax rate to the item in question until the appropriate taxing authority clarifies the issue. Defaulting to a certain tax status allows individual clients to take conservative to liberal approaches to their point of sale tax assessment. A further advantage of continuous tax information gathering is that adaptive system of the present invention can monitor proposals of tax changes published

in advance of the actual changes. In the event the anticipated change transpires, the master database 10 and the relevant client databases can be revised in near real time to reflect the change.

Figure 8 depicts a situation wherein a new participant or client merchant's point of sale UPC database is processed by the adaptive system of the present invention. At step 20, the new client delivers its UPCs and associated product/service descriptions to the adaptive system by any of the aforementioned media. At step 22 the master database 10 is invoked and a comparison between the contents of the client database and the master database is made to determine whether any of the client's UPCs match those stored in the master database 10. If one or more of the client's submitted UPCs do not match the master database, the non matching UPC or UPCs are researched at step 24 to determine their validity, accuracy and tax assessment characteristics in the taxing jurisdictions encompassed by the master database 10, and, if appropriate, are added to the master database 10.

If any of the new client's UPCs match those of the master database, then the state tax assessment information (or any other pertinent taxing jurisdiction's tax assessment information) of the product or service associated with the UPC or UPCs is checked at step 26 against current tax assessment information in the relevant taxing jurisdiction(s). If appropriate, the tax assessment information of the client's UPCs will be updated to reflect the proper tax status. Thereafter, the client's database is date-tagged at step 28, the client database is archived at step 30, and the client is provided a revised and saved version of its UPC database at step 32.

Figure 9 represents a situation where an existing client of the adaptive system desires to update its UPC tax status database. If desired, the process illustrated in Figure 9 may be used to update any portion or all of the existing client's database. It will be understood that the client's archived database and the master database 10 are continually and automatically updated by virtue of ongoing changes in bar codes, product or service descriptions, and/or tax assessment changes received by the system. At step 34 the client requests that the adaptive system perform the update. Upon receipt of the request, the adaptive system at step 36 invokes the client's archived database and, at step 38, the adaptive system compares the content of the client's present database with that of the client's archived database. If a UPC exists in both the present and archived client databases, the adaptive system determines at step 40 whether any conflicts exist between the present and the archived versions of the client databases for that UPC in any taxing jurisdictions of the interest to the client. If a conflict does exist, the adaptive system changes the tax assessment characteristics to the proper assessment values at step 42.

If the comparison at step 38 reveals a new UPC or UPCs not present in the client's archived database (step 44), the new UPC or UPCs are researched at step 46 to determine their validity, accuracy, and tax assessment characteristics in the taxing jurisdictions encompassed by the master database 10, and, if appropriate, are added to the master database 10. If the comparison at step 38 reveals a UPC or UPCs that is present in the client's archived database but not in the client's present database submitted for

comparison, the conflicting UPC entry or entries are noted as being discontinued from the client's database at step 48. The data output from steps 42, 46, and 48 is date-tagged at step 50, the updated client database is archived at step 52, and the client is provided with a revised and saved version of its UPC database at step 54.

Figure 10 illustrated the manner in which client 56 may subscribe to the adaptive system of the present invention through the Internet or other broadband network. As the need arises, client 56 may selectively update its client database. Similar to the way in which any Internet subscriber may enter any posted website, client 56 enters the website address of the operator of the adaptive system and receives a logon screen (not illustrated). The client enters a client number previously assigned to it by the adaptive system operator followed by an access number or password. After validation, a query screen appears in which the client enters the requested UPC. At step 58, the adaptive system records the UPC and compares it with a copy of the master database. If the UPC is found in the master database, a product or service description is returned by the adaptive system along with the current tax assessment characteristics for the product or service in the states or other taxing jurisdictions for which the client subscribes. If the requested UPC is not found in the master database, an input screen appears and the UPC is preferably filled in automatically. The client then enters the product or service description and transmits the information from the completed input screen to the adaptive system. Each requested UPC is then researched at step 60 to determine its validity, accuracy, and tax assessment characteristics in the taxing jurisdictions encompassed by the master database, and, if appropriate, is added to the master database 10. At step 60, the adaptive system notifies the client of the results of the search by the client's method of choice.

The inventor has coined a new term, Universal Service Code (USC), in order to universally codify all services. This term is intended to be an open standard available to all. By creating such a system to uniformly identify services, the inventor can create a taxability database for the USCs to be used in a similar manner to the one created for the UPCs.

Module 2 RateFinderPro

The imposition of sales tax is based on where a particular product or service is delivered. Thus, sellers of goods and services, especially those businesses with nexus (physical presence) in the state of delivery such as telecommunications companies, must apply the correct tax rate when billing their customers. In certain situations, applying the correct rate can be a daunting task since over 7,500 jurisdictions impose their own rate. The vast majority of jurisdictional boundaries of most local governments can be defined simply by using commercially available mapping software (usually approved by the US Postal Office) that applies the tax rate based on zip and zip + 4 delivery addresses. Zip codes, including Zip + 4 can determine the proper taxing jurisdiction with an approximate 89% accuracy rate. Although this accuracy rate may seem significant, the fiscal impact of its shortcomings is a concern and burden for many smaller local governments. For example, one address of a commercially busy

street in Denver may be taxed at one rate, while the address across the street is taxed at a different rate yet both reside in the same zip + 4 area code. This environment poses a daunting task for taxpayers. The failure of this system is easily observed since certain zip codes and zip + 4 codes fall into two taxing jurisdictions. The dilemma for sellers with nexus (physical presence) is that they are liable for mistakes made in applying the incorrect tax.

The invention significantly increases the accuracy rate of aligning an address to the proper taxing jurisdiction. As illustrated in Figure 4, the invention outlines a jurisdiction with latitude and longitude points, via GPA technology or advance mapping technology with specific decision logic. The invention also utilizes commercially available map databases which contain zip and zip + 4 and geocoded latitude and longitude coordinates for approximately 99.99% for all addresses in the United States in conjunction with the invention of the latitude and longitude coordinated taxing jurisdictions.

All physical addresses and taxing jurisdictions have latitude and longitude coordinates. The invention utilizes government issued digital or paper maps of local taxing jurisdiction and applies geocoded latitude and longitude coordinates around the perimeter forming an identical geometric shape of the jurisdictions boundary.

All addresses are associated with a taxing jurisdiction. The invention houses the sales tax rates of all state and local jurisdiction tax rates.

The invention implements flags on zip and zip + 4 area codes that fall within two or more taxing jurisdictions that maintain different sales tax rates. The invention uses reader technology to identify flagged zips sent online to the mapping database.

The invention uses logic rules, including Boolean Logic, Fuzzy Logic and interference engines to default to the latitude and longitude perimeter maps in which the reader identifies flagged zips and zip + 4 area codes transmitted electronically to the inventors database.

The invention applies the correct taxing rate to products or services based on the non flagged or flagged address and zip code for final tax calculation using the inventor's tax accumulator in real-time and remits this information to the web retailer. This module can be prepackaged and sold commercially.

The invention accepts real-time state and local changes in tax rates. Tax boundary changes can be updated within seven days of receiving and updated digital map from a local jurisdiction.

The software and hardware which house this database are domiciled at a data center in a remote location from all sellers.

Module 3 Exemption Acceptor and Interactive Screen Table

Under our Federalist style of government, the US Constitution allows state sovereignty with respect to the states' ability to impose sales tax on goods and services sold within with each states' border. One of the most common methods that states impose tax is through a transaction tax, most commonly referred to as sales tax. Forty-five states impose sales tax. States legislatures allow flexibility in imposing sales tax on enumerated goods and services. Industries and individual companies, both historically and currently allow certain uses of goods and services to be exempted from sales tax. An exemption from sales tax must be based on the use of a particular good or service. For example, the Commonwealth of Pennsylvania imposes a sales tax on computers. However, computers can be bought exempt from sales tax if used in research and development, manufacturing or if used by a charitable institution or political subdivision (the latter two are exempted across all states). Political, social, and industrial lobbying groups as well as individual companies lobby state legislatures for exemptions that create a financial incentive for their particular concern. Legislatures have sought to create benefit for taxpayers in their state jurisdiction by providing financial incentives to targeted industries, sectors or companies and thus encouraging greater economic activity through the use of exemptions or exclusions.

Companies, political governments, charitable institutions or businesses procuring goods and services for an exempt purpose commonly provide an exemption certificate to the vendor illustrating the exempt manner in which the good or service are used. By accepting this exemption certificate, the vendor safeguards itself from an audit liability from the state or local jurisdiction in which the vendor operates.

States issue exemption certificates with code numbers relating to an exempt use. For example, an ST-4 is New Jersey's sales for resale exemption form.

Currently, on line procurement of goods and services do not provide interactive pop up menu choices for the consumer. Dell Computer Corporation, one of the largest web retailers allows entities purchasing computers or related computer equipment, the traditional manner of to purchase goods and services exempt. Dell's traditional exemption choice model requires that the customer call a Dell service representative and provide exemption status information in order to process the transaction. However, the consumer must first call a Dell service representative and establish an account as well as provide an exemption number to Dell. This is the typical model for web retailers whose primary target market is business, political or charitable entities who routinely allow their customers the ability to purchase goods and services without paying sales tax.

As illustrated in Figure 5, once the consumer has completed their purchase choices, the web retailer provides a list of the consumer's final selections. At this point, a small box on the retailers' website queries the consumer if any of the selections will be bought using an exemption number or similar number, such as a Federal Identification Number. The consumer utilizing an exemption, usually a charitable institution or a business engaging in an exempt activity, inputs the appropriate numbers into the appropriate line. The consumer then depresses the submit button on the web retailers website. This routes the product and/or service numbers as well as the delivery information of the consumer to inventors database. The database engine determines the exemption number and reason

code, which is housed in another relational database. Also, the selected products or services are translated into the standard UPC or USC code used by the inventor. Once the search has found a match, the state's total exemption codes and reasons of the delivery State of the consumer are sent to the consumer's web browser along with a mirrored list of the consumer's selected choices. The consumer choices are placed in an electronic pop up table on the left hand side of the table in a scrolling list view. To the right of each good or service chosen, are two side-by-side boxes. Each box's header at the table is vertically aligned with each box as depicted in figure 6B. The left side box is titled taxable. The right side is titled non-taxable. Each left box is interactive and provides an electronic space in which a consumer can click if the choice is taxable. The right side box is headed by a title, exempt. The consumer is led to choose a taxable status for each selection. Once the consumer clicks each tax status and when appropriate, clicks on the exemption code from the drop down list. A box on the title bar is shown as well for consumers who intent on using the same exemption code for each selection as seen in Figure 6B as well. This is intended to save time on the part of the consumer. Once the consumer has completed the tax exemption acceptor table, the information is then sent electronically to the inventor's database for total tax tabulation. The final tax calculated is then sent electronically to the consumer's web browser for viewing and/or completing the transaction. Once the transaction is complete, the transaction information is tagged, assigned a transaction number and sent to the inventor's Jurisdiction Reporter database module.

Module 4 Jurisdiction Reporter

Taxing jurisdictions need to have access to audit trails of companies or entities procuring exempt items or services.

State and local tax jurisdictions are likely to focus on entities that purchase items or services that are used for exempt purposes. Thus, the inventor has invented three reports for real-time reporting access.

The exemption acceptor invention module provides the necessary information to create custom audit reports for the appropriate taxing jurisdictions. The exemption information is sent to the inventor's Jurisdiction Reporter Module for summary.

Figure 11 illustrates a summary of a specific transaction report, which includes the appropriate taxing authority, transaction number, total invoice for a single transaction amount, transaction number, amount exempt, exemption reason, date, exempt reason, delivery address, a federal or sales tax identification number, tax collected and an ACH route number. The Jurisdiction Reporter Module, in accordance with privacy laws, can provide custom reports based on the above transaction information for any time period that a retailer was part of the system.

Module 5 Tax Transfer Module

The invention sends transaction information from a completed transaction to the inventor's financial institution. Typically, the online transaction is completed once the

credit card authorizes the customer's issuing bank to send payment to the merchant's accepting bank. The invention is a process by which the customer pays the appropriate tax through a series of steps involving the invention, the credit card company, the issuing bank, the accepting bank, an ACH account, and the appropriate bank of the state-taxing jurisdiction that is owed the tax. This flow of information allows states to receive the appropriate taxes once the sales settles overnight. The tax revenue is electronically wired instantaneously and an electronic report is rendered in real-time on line anytime by the appropriate taxing authority or merchant.

This module significantly increases the ease by which retailers can return the proper tax credit associated with a "returned good or service" to consumers.

Figure 1

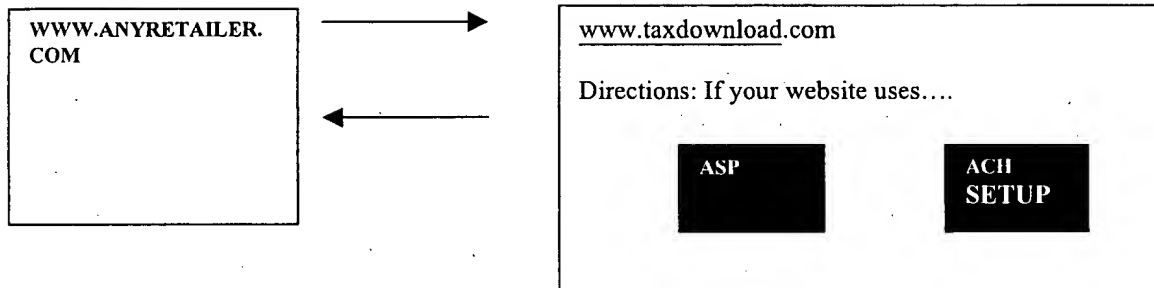


Figure 2

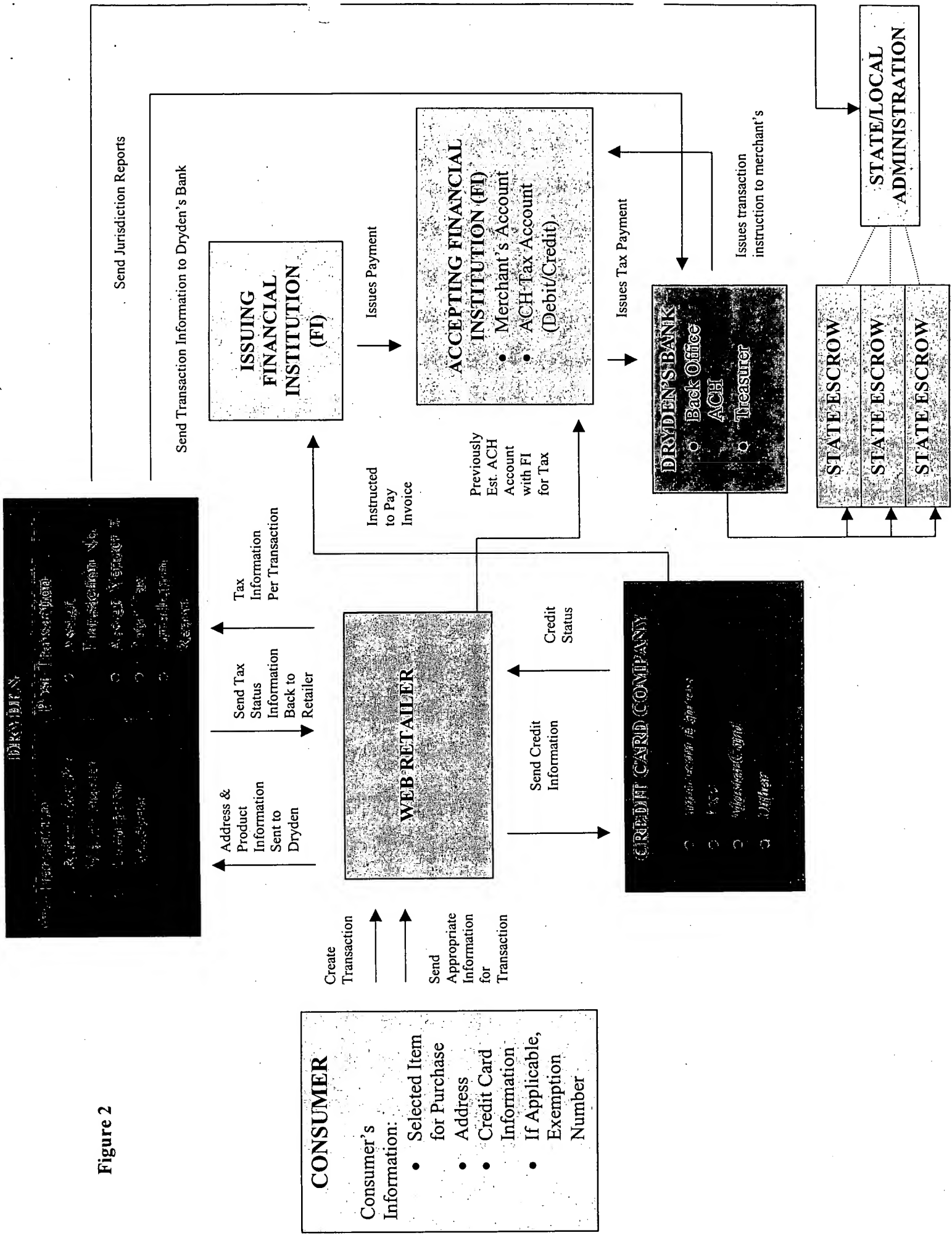


Figure 3

Overview modules in transparent sequence

Step	Action	Result
1	Online retailer establishes a ACH escrow account for sales tax with financial institution..	An account with a financial institution must be established in order to send and receive the tax revenue. ***This is not a "RESULT"
2	Online retailer imports quasi transparent tax code (tax trigger) into its website.	Online retailer website now capable of transmitting purchasing data to 3 rd Party.
3	Online consumer inputs address information into web browser and clicks purchase button.	Online retailer sends address and product ID information to Inventor.
4	Inventor runs the following matches against tax status and address information.	Inventor determines necessary rate if applicable and sends information back to online retailer.
5	Online retailer adds proper sales tax to purchase and total price is recalculated.	Final price is determined and if purchase is taxable, total price is recalculated to include tax.
6	Final order is processed. Online retailer submits credit information to credit card issuer.	It is established if the proper credit is reached.
7	Financial institution sends payment to vendor who credits the tax account.	Proper tax revenue is collected by vendor with the absolute minimal burden.
8	Timing sweep of tax account is set and sent to financial institution of proper taxing jurisdiction.	The proper taxing jurisdictions receive both a report and tax revenue.

Figure 4

Customer inputs address
 Address sent to Inventor's database
 Address sent through series of logic tests

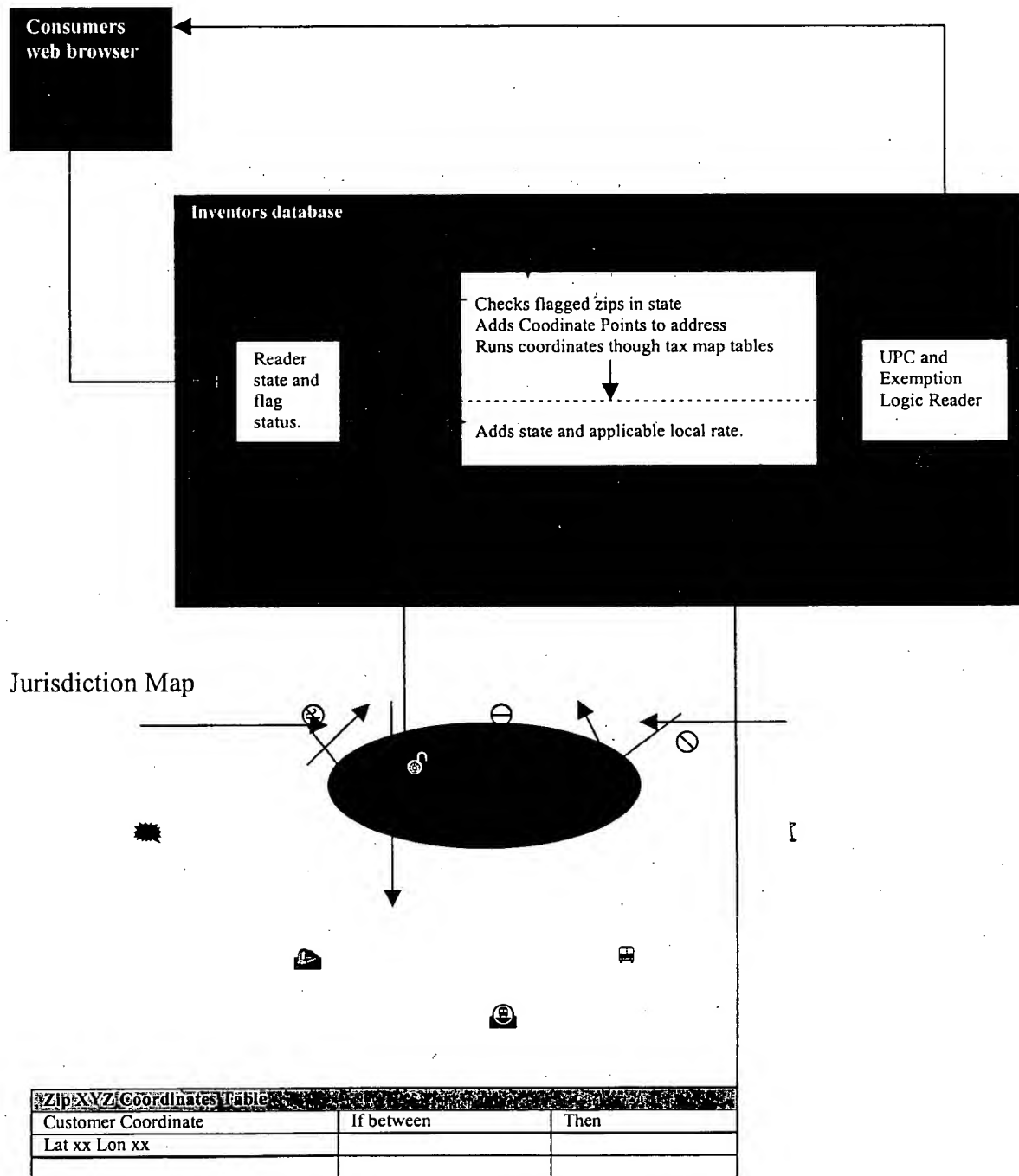


Figure 5

	Price	Ship Method	Gift
#25020 BLK O/S Computer	\$285.00	<input type="text"/>	<input type="checkbox"/>
#25020 BLK O/S Dooney Gloves	\$205.00	<input type="text"/>	<input type="checkbox"/>
Merchandise Subtotal		\$570.00	
Giftboxing Total		\$0.00	
Ship Charge		\$14.95	
Are you claiming an exemption		Sales Tax	\$35.10
Yes No			\$620.05
<input type="checkbox"/> <input type="checkbox"/>			
If yes, what is your Federal ID# _____ (required)			

Figure 6a (if you are a regular consumer)

Item	Tax Status
Computer	Taxable
Dooney Gloves	Taxable

Figure 6b (if you are using an exemption reason)

Click on the tax status of each item

PA
 01 Sale for Resale
 02 Manufacturing
 03 R&D
 04 Charity
 05 Political

Click here if all good(s) and/or service(s) are exempt under the same exempt code. Please choose the exemption here: [▶](#)

Item	Taxable	Non Taxable	Exemption Claimed
Computer	<input type="checkbox"/>	<input type="checkbox"/>	Drop Down Menu
Dooney Gloves	<input type="checkbox"/>	<input type="checkbox"/>	Drop Down Menu

PA
 01 Sale for Resale
 02 Manufacturing
 03 R&D
 04 Charity
 05 Political

Figure 7

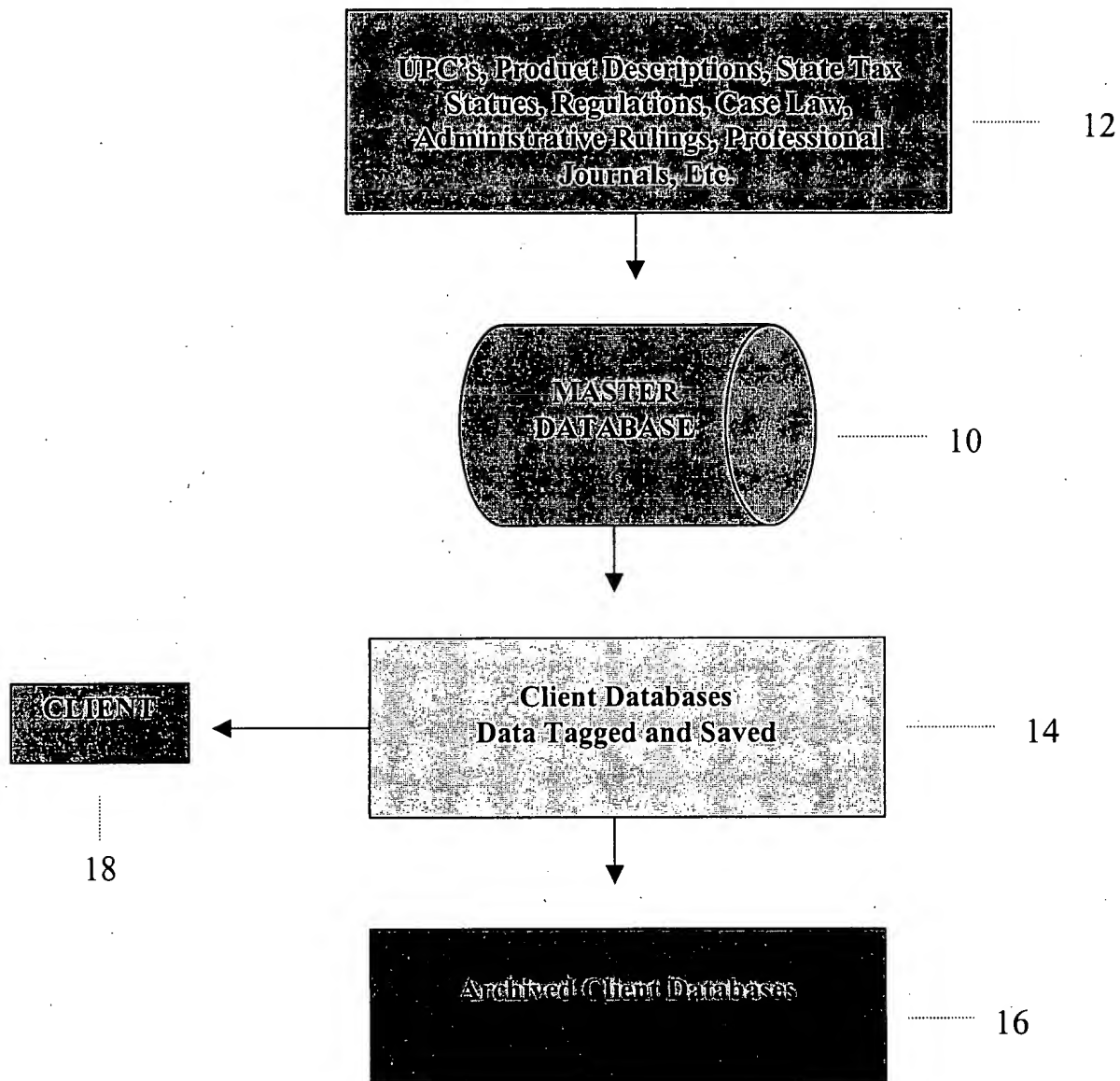


Figure 8

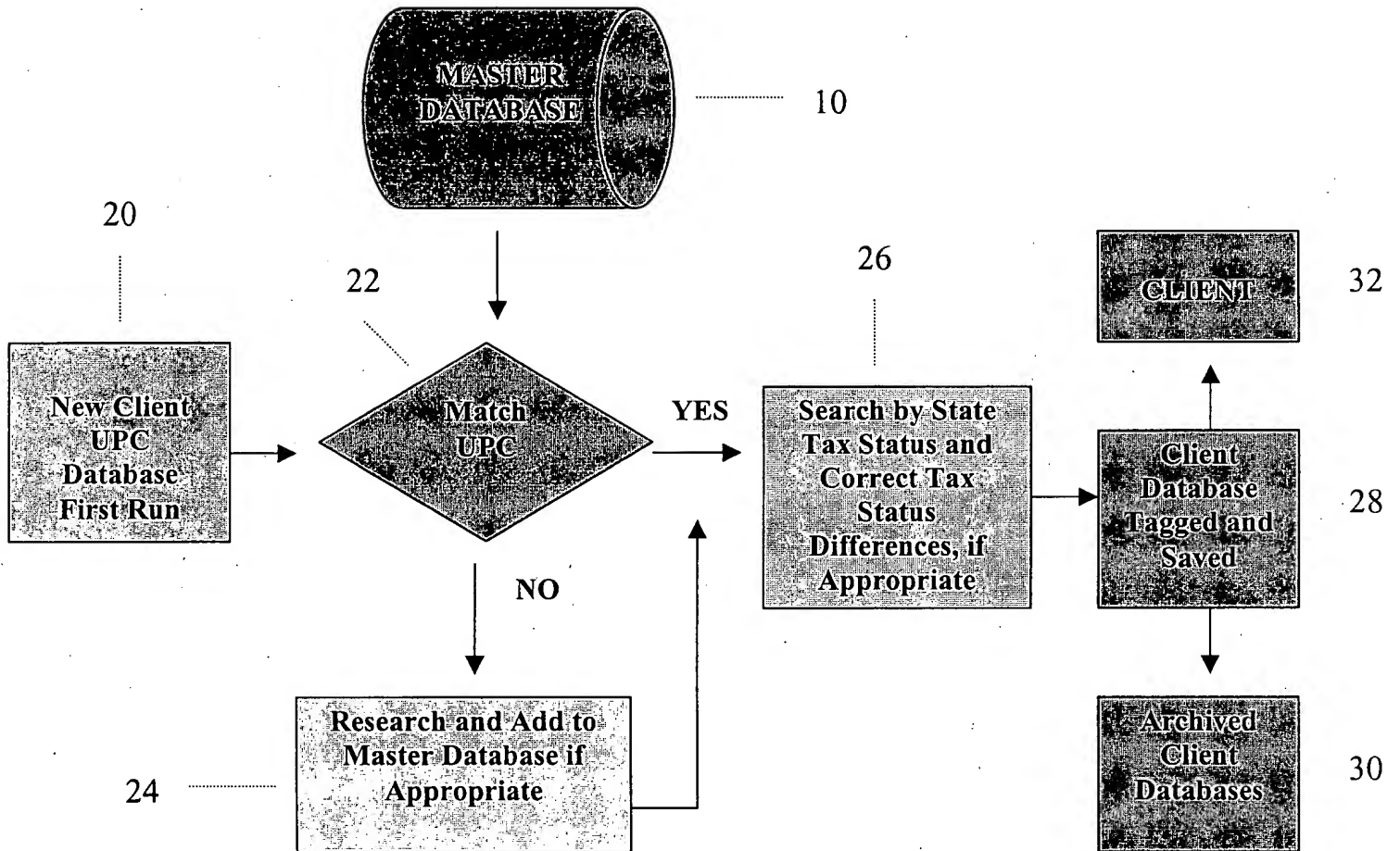


Figure 9

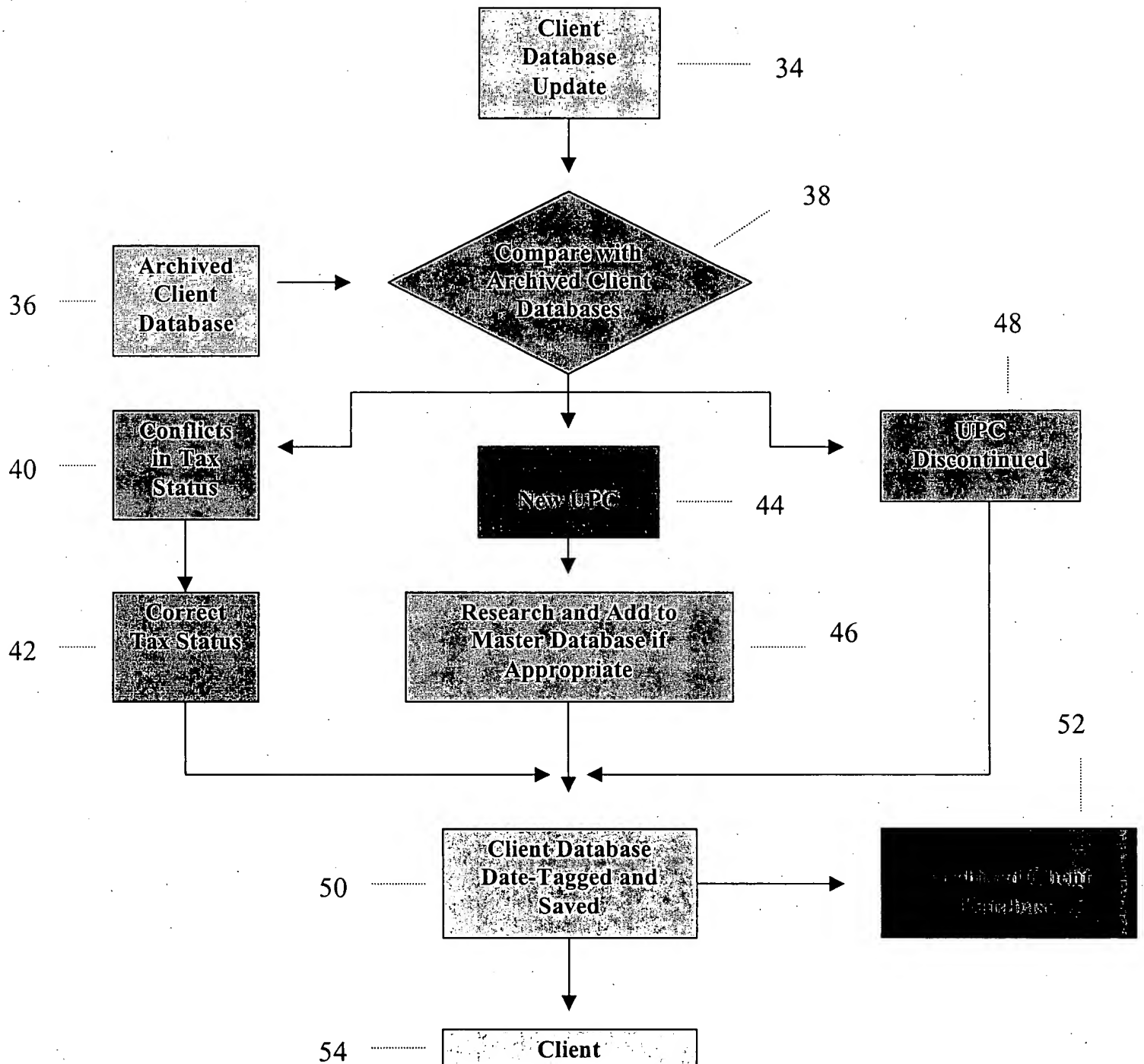


Figure 10

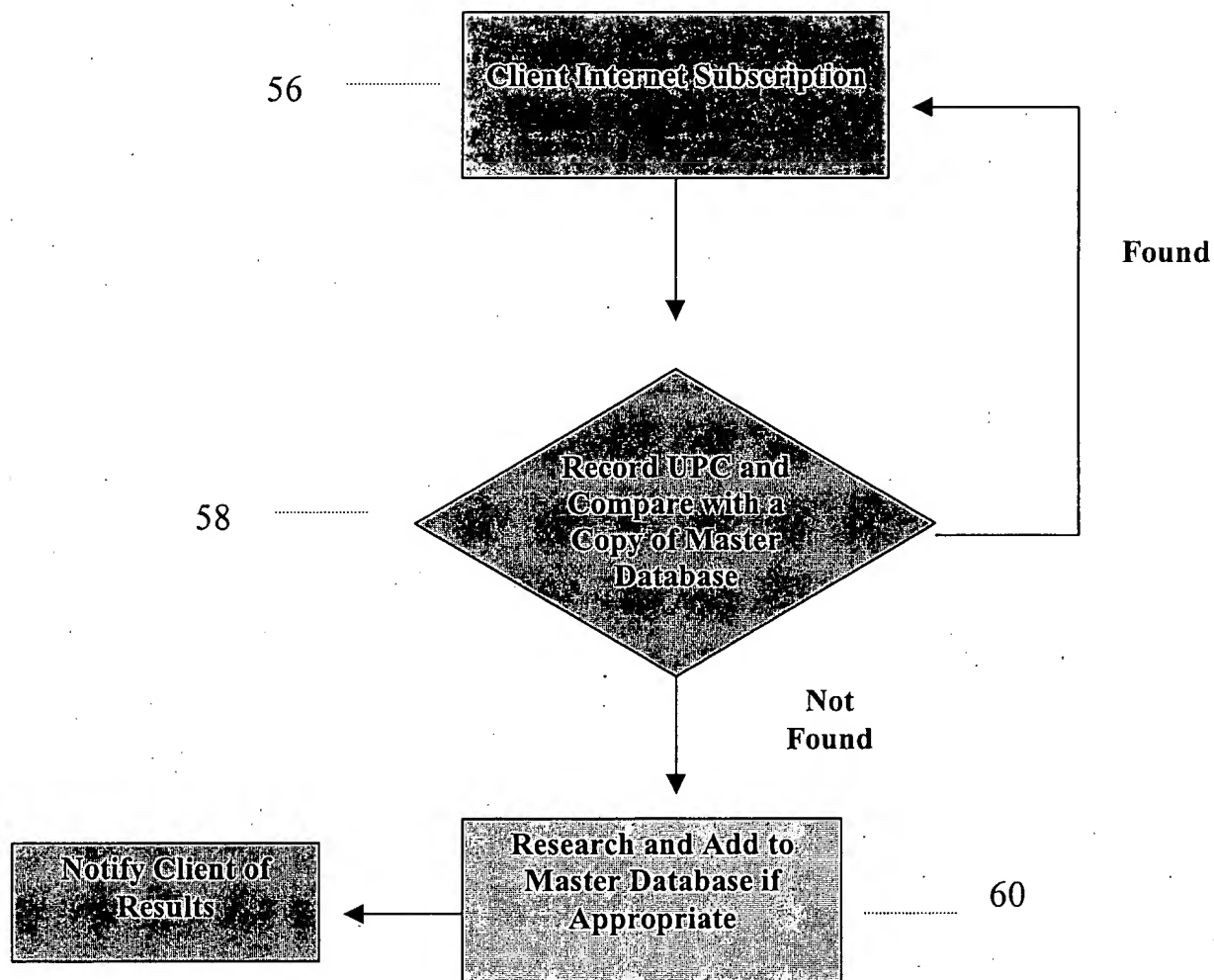


Figure 11

Report	001
Tax Authority	Wisconsin
Transaction Number	00121001
Total Invoice	\$342, 899
Amount Exempt	\$101,277
Date	1-16-01
Reason	ST-4
Delivery Address	Milwaukee, WI
Federal ID	12345678
Total Tax Collected	\$13,000
ACH Route number	12b345

Appendix A: Overview of the Online Environment

Facts and Figures

Three Stages of Web Buying⁴

- 1) Convenience Spending
 - Small ticket, low risk items
 - Examples – books, music, apparel, gifts
- 2) Researched Purchases
 - Information intensive big ticket items
 - Examples – travel, appliances, computers
- 3) Fulfilling Essentials
 - Low information habitual purchases
 - Examples – groceries, prescription medication

Growth in the Percentage of US Households to Have Internet Access⁵

Year	Percentage of US Population
1993	0.2 %
1996	14 %
1999	37 %
2002	50 %

Number of Internet Users on a Global Scale⁶

Year	Number of People
1993	3 million
1999	200 million
2000	300 million

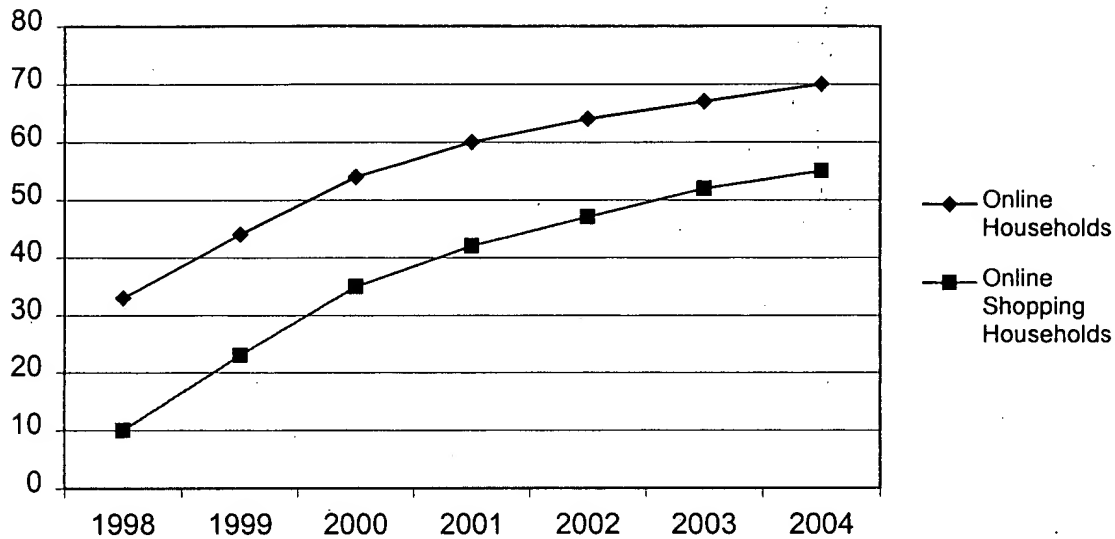
⁴ Seema Williams, "The Future of Retail," Forrester Research, Inc., 3 June 2000.

⁵ U.S. Dept. of Commerce, *The Emerging Digital Economy II* (Washington, D.C.: U.S. Dept. of Commerce, 1999), 3; "Drawing the Battle Lines," *Wall Street Journal*, September 16, 1996; Peter H. Lewis, "More Users Now Taking a Direct Route to the Internet, a Survey Finds," *New York Times*, September 23, 1996; U.S. Government Working Group on Electronic Commerce, *First Annual Report*, www.ecommerce.gov (Nov. 30, 1998); U.S. Dept. of Commerce and the U.S. Government Working Group on Electronic Commerce, *The Emerging Digital Economy Report* (Washington, D.C.: U.S. Dept. of Commerce, April 16, 1998), Chapter 1; Steve Lohr, "Phone Merger Aims to Control Electronic Pipeline of Future," *New York Times*, June 29, 1998; "Beyond the PC," *Business Week*, March 8, 1999, p. 86; Steve Lohr, Survey Suggests Consumers Are Taking to E-Commerce," *New York Times*, March 22, 1999; "The Internet Age," *Business Week*, October 4, 1999, p. 77.

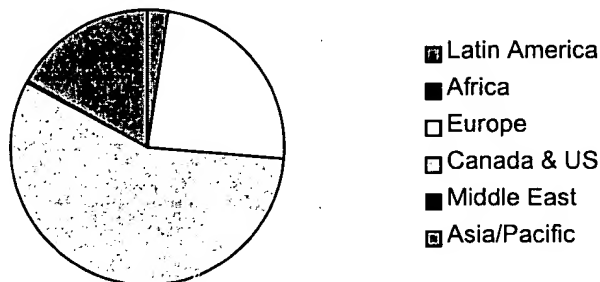
⁶ *Ibid.*

2010 1 billion

The Growing Trends of Internet Shopping⁷



Composition of Internet Users in 1999^{8*}



*Data sample composed of 201 million people

- Forrester Research expects the United States to enter a 'hyper-growth' phase of E-Commerce in 2000, followed within two years by Canada, Britain, and Germany, and within four years by Japan, France, and Italy.⁹

⁷ Seema Williams, "The Future of Retail," chart, Forrester Research, Inc., 3 June 2000.

⁸ U.S. Dept. of Commerce, *Emerging Digital Economy II*, 3; U.S. Dept. of Commerce and U.S. Government Working Group on Electronic Commerce, *Emerging Digital Economy Report*; U.S. Government Working Group on Electronic Commerce, *First Annual Report*; "Amazon.com: The Wild World of E-Commerce," *Business Week*, December 14, 1998, p. 108; *Business Week E-Biz*, March 22, 1999, p. EB 12; NUA studies on world Internet usage, cited in the Internet Economy Indicators, "The Global Internet" www.internetindicators.com (June 25, 1999).

⁹ "Forrester Estimates Worldwide Internet Commerce"; "Business and the Internet"; International Data Corporation study cited in "The Internet Age," p. 77.

Number of Years for Different Forms of Technology to Reach 50 Million People in the Global Population¹⁰

Type of Technology	Number of Years
Radio	38 Years
Television	13 Years
Personal Computers	16 Years
Internet	4 Years

- The Internet is on the verge of reinventing social and commercial relationships because it represents the convergence of three previously distinct communications channels: data transmissions (associated with computers), voice transmissions (associated with telecommunication services), and video transmissions (connected with the entertainment, cable, and television companies)¹¹
- An agriculture-based economy dominated world commerce up until the 19th century, whereas an industrial-based economy dominated world commerce in the 19th and 20th centuries. Beginning in the late 20th century, the information-based economy has begun to supplant both agricultural and industrial activities at the center of global commerce.¹²

Growth of the Internet as a Sales Channel for US Businesses¹³

Year	Percentage of US companies retailing online
1998	24 %
2000	56 %
2002	70 %

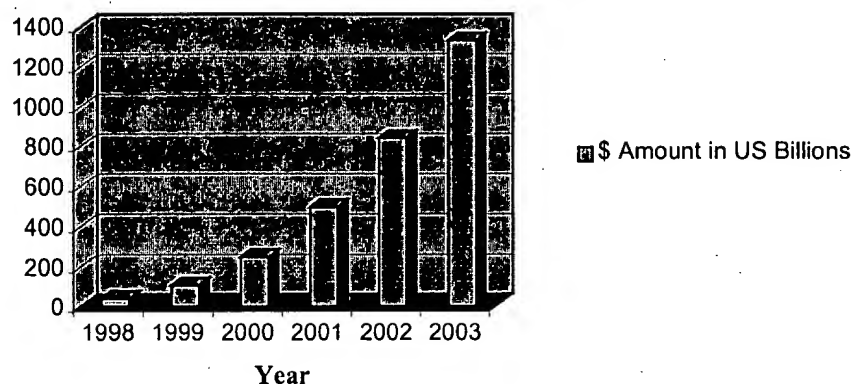
¹⁰ Robert E. Litan and William A. Niskanen, *Going Digital* (Washington, D.C.: Brookings Institute and the Cato Institute, 1998), 32.

¹¹ George Johnson, "Searching for the Essence of the World Wide Web," *New York Times*, April 11, 1999.

¹² Karl Frieden, *Cybetaxation* (Chicago, IL: CCH Incorporated, 2000), 19.

¹³ "Media Matrix Chronicles the 'History' of the Internet," Media Metrix press release www.mediametrix.com (March 18, 1999); NUA study cited at "The Internet Economy Indicators: Facts and Figures," www.internetindicators.com (June 25, 1999); "Deloitte Consulting: Ecommerce to Top USD 1.1 Trillion by 2002" www.nua.ie/surveys (June 23, 1999).

Growth of Business to Business E-Commerce in the United States¹⁴



- A study by Ernst and Young in 1998 estimated [sales and use tax] revenue loss from Internet remote sales at \$170 million compared to revenue losses in that year from remote mail-order sales of \$4.5 billion.¹⁵
- By the year 2003, Michael Mazerov of the Center on Budget and Policy Priorities estimated the tax revenue loss to be \$10 billion for remote Internet sales and only \$5 billion for remote mail-order sales.¹⁶
- A major reflection of the breadth of sales tax bases is the variation among states in the number of service categories taxed.¹⁷

State	Number of Taxed Services
Hawaii	157
New Mexico	152
South Dakota	151
New York	74
California	18
Illinois	17

¹⁴ "Twas the Season for E-Splurging," *Business Week*, January 18, 1999, p. 40; "On-Line Shopping," *USA Today*, March 1, 1999; "Amazon.com," p. 108; Morrisette, Bluestein, and Maraganore, "Consumers Digital Decade" (on consumer commerce); George Anders, "Click and Buy: Why – and Where – Internet Commerce is Succeeding," *Wall Street Journal*, December 7, 1998 (on business commerce).

¹⁵ Freiden, Karl, *Cybertaxation* (Chicago, IL: CCH Incorporated, 2000), 71.

¹⁶ New Jersey Public Laws, Chapter 26, § 18 (1996).

¹⁷ Federation of Tax Administrators, *Sales Taxation of Services: 1996 Update*, Research Report no. 143 (Washington D.C.: Federation of Tax Administrators, April 1997).



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APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
60/215,284	06/30/2000		75	22529-6613C	3		

FILING RECEIPT



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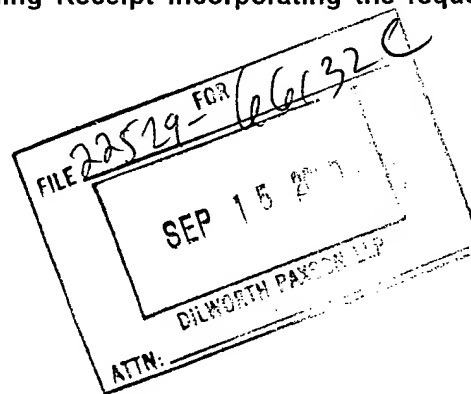
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Applicant(s)

Kevin C. Johnson, Villanova, PA ;
Brendan P. Johnson, Villanova, PA ;
John O. Ridley, Schwenksville, PA ;



Continuing Data as Claimed by Applicant

Foreign Applications

If Required, Foreign Filing License Granted 09/08/2000

** SMALL ENTITY **

Title

RatePro Finder

Preliminary Class

Data entry by : JONES, KIMBERLY

Team : OIPE

Date: 09/11/2000



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Attorney: JFL

Docket No.: 22529-66132C

Serial No.: n/a

The Patent Office acknowledges and has stamped hereon the date of receipt of the following items:

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Kevin C. JOHNSON, Brendan P. JOHNSON and John O. RIDLEY

For: RatePro Finder

CERTIFICATION UNDER 37 C.F.R. 1.10

I hereby certify that this correspondence and the documents referred to as attached therein are being deposited with the U.S. Postal Service on June 30, 2000, in an envelope as "EXPRESS MAIL POST OFFICE TO ADDRESSEE" service under 37 C.F.R. 1.10, Mailing Label Number EL485847210US addressed to the: Assistant Commissioner for Patents, Washington, DC 20231.


Karen M. Spina

BOX PROVISIONAL PATENT APPLICATION
Assistant Commissioner for Patents
Washington DC 20231

**COVER SHEET FOR FILING PROVISIONAL APPLICATION
(37 CFR § 1.51(c)(1))****This is a request for filing a PROVISIONAL APPLICATION FOR PATENT.**

THE FOLLOWING COMPRISES THE INFORMATION REQUIRED.

NAMES AND RESIDENTIAL ADDRESSES OF THE INVENTOR(S):

- | | | | |
|----|--|-------------------------------|-----------------------------------|
| 1. | Kevin | C. | Johnson |
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| 2. | Brendan | P. | Johnson |
| | <small>GIVEN NAME</small> | <small>MIDDLE INITIAL</small> | <small>LAST (FAMILY) NAME</small> |
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| | 9 Barley Sheaf Lane, Schwenksville, PA 19473 | | US |
| | <small>RESIDENTIAL ADDRESS</small> | | <small>CITIZENSHIP</small> |

TITLE OF THE INVENTION: RATEPRO FINDER

☐ A power of attorney accompanies this cover sheet.

This invention was made by an agency of the United States Government, or under contract with an agency of the United States government (37 CFR § 1.51(c)(1)(viii)):

☒ No.

☐ Yes. The name of the U.S. Government agency and the government contract number are: _____

IDENTIFICATION OF DOCUMENTS ACCOMPANYING THIS COVER SHEET:

Required:

☒ Specification No. of Pages 5

☒ Drawings No. of Sheets 3

Additional documents:

☐ Claims No. of Claims

☐ Abstract

☒ Small Entity Statement

☐ Assignment

☒ Appendix A No. of Sheets 1

FEE:

The filing fee for this provision application is:

☐ Other than small entity \$150.00

☒ Applicant is a small entity \$ 75.00

☒ The statement(s) that this is a filing by a small entity under 37 CFR §§ 1.9 and 1.27 are attached.

Fee Payment:

☐ No filing fee is to be paid at this time. (Filing fee and surcharge required by 37 CFR § 1.16(l) can be paid subsequently).

☐ Fee payment in the amount of \$150.00 is being made at this time.

☒ A check in the amount of \$75.00 is enclosed.

☐ Please charge Deposit Account No. 50-0979 in the amount of \$_____. A duplicate of this Cover Sheet is attached.

Date: June 30, 2000



John F. Letchford
Registration No. 33,328

DILWORTH PAXSON LLP
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6-30-2000 11:03AM

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P. 3

Attorney Docket No: 22528-66132C

PROVISIONAL

**STATEMENT CLAIMING SMALL ENTITY STATUS
(37 CFR §§ 1.9(f) and 1.27(b)) – INDEPENDENT INVENTOR**

Applicant, Patentee or Identifier: Kevin C. Johnson, Brendan P. Johnson, John O. Ridley

Application Serial No. or Patent No.: Not yet assignedFiled or Issued: HerewithTitle: RATEPRO FINDER

As below-named inventor, I hereby state that I qualify as an independent inventor as defined in 37 C.F.R. § 1.9(c) for purposes of paying reduced fees to the U.S. Patent and Trademark Office described in:

- ☒ the specification filed herewith with title as listed above.
☐ the application identified above.
☐ the patent identified above.

I have not assigned, granted, conveyed, or licensed, and am under no obligation under contract or law to assign, grant, convey, or license, any rights in the invention to any person who would not qualify as an independent inventor under 37 C.F.R. § 1.9(c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 C.F.R. § 1.9(d) or a nonprofit organization under 37 C.F.R. § 1.9(e).

Each person, concern, or organization having any rights in the invention is listed below:

☒ No such person, concern, or organization exists.

Separate statements are required from each named person, concern, or organization having rights to the invention stating their status as small entities. (37 CFR § 1.27).

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time or paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR. § 1.28(b)).

Kevin C. Johnson
NAME OF INVENTOR


SIGNATURE OF INVENTOR

DATE

6/30/00

Brendan P. Johnson
NAME OF INVENTOR


SIGNATURE OF INVENTOR

DATE

6/30/00

John O. Ridley
NAME OF INVENTOR


SIGNATURE OF INVENTOR

DATE

6/30/00

Provisional Patent Application of

Kevin Johnson, Brendan Johnson, and John Ridley

for

TITLE: RatePro Finder

BACKGROUND—FIELD OF THE INVENTION

This invention relates to the determination of state and local tax rates for all vicinities around the world, given the address at which the appropriate rate must be identified.

BACKGROUND—DESCRIPTION OF PRIOR ART

Sales tax was created to serve as an additional source of revenues to governments at all levels. Levied at the time of purchase, sales tax is imposed only on certain goods and services deemed taxable by state and local governments. The imposition of sales tax is based on where a particular product or service is delivered. Thus, sellers of goods and services, especially those that have businesses with Nexus¹ (physical presence) in the state of delivery, such as telecommunications companies, must apply the correct tax rate when billing their customers. In certain situations, applying the correct rate can be a daunting task since over 7,500 jurisdictions in the United States impose their own rates.

The vast majority of jurisdictional boundaries of most local governments can be defined simply by using commercially available mapping software (usually approved by the US Postal Office) that applies the tax rate based on zip and zip + 4 delivery addresses. Zip codes, including zip + 4 codes, can be used to determine the proper taxing jurisdiction with an approximate 89% accuracy rate. Although this accuracy rate may seem significant, the fiscal impact of its shortcomings is a concern and burden for many smaller local governments. An example of these critical inaccuracies may better serve to show the governments' current dilemma. One address of a commercially busy street in Denver may be taxed at one rate, while the address across the street is taxed at a different rate yet both reside in the same zip + 4 area code. Appendix A depicts a digital map of Dallas County, TX where zip + 4 coding creates inaccuracies similar to those described above.

This environment poses a difficult task for retailers as well. The failure of this system is easily observed since certain zip codes and zip + 4 codes fall into two taxing jurisdictions. In such a case, retailers are faced with a guessing game of

¹ Internet Tax Freedom Act, 1998.

which tax rate to apply. This poses a dilemma for retailers with Nexus (physical presence) in the state of delivery since they are liable for any mistakes made in applying the incorrect tax.

DETAILED DESCRIPTION OF THE INVENTION

The invention significantly increases the accuracy rate of aligning an address with the proper taxing jurisdiction above the accuracy previously available by using zip and zip+4 coding. All physical addresses and taxing jurisdictions have latitude and longitude coordinates. While some taxing jurisdictions fall within clearly defined boundaries on the county, township, and borough levels, others do not. Commercially available maps that detail counties, township, and boroughs may be used for those areas that apply tax rates along these mapped boundaries. In these cases, the invention utilizes commercially available map databases which contain zip, zip + 4, and geocoded latitude and longitude coordinates with approximately 99.99% accuracy to determine boundaries for taxing jurisdictions.

However, in the case that mapped boundaries are not used to determine tax rates (e.g. Denver uses bus routes to define different taxing jurisdictions), another form of GPS technology may be used. In these unique cases, the taxing jurisdiction's boundaries can be walked out by an individual who carries a GPS device that reads out the coordinates at each point along the walked path. In this way, the exact latitude and longitude points for these unusual boundaries can be determined.

Using both methods to attain latitude and longitude coordinates for all taxing jurisdictions' boundaries, the inventor places this compiled data into a proprietary database. These coordinates are then used in conjunction with specific decision logic, such as Boolean logic. When given the send-to address information from a purchase, the invention identifies the specific latitude and longitude points associated with the given address. Then the invention's database places the address into an IF, THEN statement where, if the address's coordinates fall within the coordinates of a certain taxing jurisdiction, then the purchase sent to that address is taxed at that jurisdiction's tax rate. This logic is applied to the address until its coordinates are matched with the correct taxing jurisdiction.

The adaptive system of the present invention may reside in different forms depending on the type of retailer that is using the invention. If the retailer conducts commerce via the Internet, then the invention will reside on a multiple server environment with massive parallel processors and multiple broadband Internet connections. The adaptive system must reside on a number of redundant relational databases capable of real-time delivery of information and have the ability to store and deliver thousands of multiple sales tax decisions while simultaneous correspondence with multiple retailers' websites. To communicate

with these remote servers, web retailers must add lines of code into the source code of their commercial web site. When a purchase is made through that site, the inserted code identifies the particular retailer, transmits the address information to the inventor's server, and then transmits the taxing information back to the retailer's website.

If the retailer has a brick and mortar operation, the invention will be packaged as an add-on to the retailer's existing software platform, such as an Oracle database. There will be no communication with the remote servers that are used by web retailers since the software add-on will contain all of the information in the proprietary database that is housed within the remote server.

The applications of this invention are unbounded. Web retailers, such as Ebay, can use the invention to correctly apply tax to purchases made through their web sites. Telecommunication companies, such as AT&T, can use the invention to apply accurate tax to billing statements that detail individual telephone calls. Also, mail order companies can determine the tax for purchases sent around the globe in real time with the use of the invention.

DRAWING FIGURES

The invention will become more readily apparent from the following description of preferred embodiments thereof shown, by way of example only, in the accompanying drawings, wherein:

Figure 1 is a simple schematic view of how web retailers can communicate with the inventor's remote database to acquire the correct tax rate for individual online purchases, given the purchaser's send-to address.

Figure 2 is a simple schematic view of a presently preferred process by which a web retailer downloads the necessary communication software from the inventor's web site.

Figure 3 is a simple schematic view of how the invention can be applied to brick and mortar operations, packaging the database to work in conjunction with the brick and mortar retailer's existing software platform.

DESCRIPTION—FIGURE 1

All addresses are associated with a taxing jurisdiction. The invention houses the sales tax rates of all state and local jurisdiction tax rates with matching latitude and longitude points within a proprietary database compiled by the inventor, as

depicted in Figure 1. The software and hardware that house this database are domiciled at a data center in a remote location from all web retailers.

The invention implements flags on zip and zip + 4 area codes that fall within two or more taxing jurisdictions maintaining different sales tax rates. The invention uses reader technology to identify flagged zips sent online to the mapping database.

The invention uses logic rules, including Boolean Logic, Fuzzy Logic and interference engines to default to the latitude and longitude perimeter maps in which the reader identifies flagged zip and zip + 4 area codes transmitted electronically to the inventors database.

The invention applies the correct taxing rate to products or services based on the non-flagged or flagged address and zip code for final tax calculation using the inventor's tax accumulator in real-time and remits this information to the web retailer.

The invention accepts real-time state and local changes in tax rates. Tax boundary changes can be updated within seven days of receiving and updated digital map from a local jurisdiction.

FIGURE 2

To initiate communication from the retailer to the inventor's website, the retailer must first add the appropriate software code to their website as illustrated in Figure 2. This code must be added to the source code used to build the site of the web retailer. One part of this code used to establish the link is an IP address or Uniform Resource Locator (URL). Since website designers use numerous languages to create websites, the free download of code from the inventor's website is written in all programming languages that are currently used to create websites. Web retailers also have the option of writing their own code to communicate with Inventor's website if this presents itself to be a less burdensome solution.

The software code, placed within the web retailer's source code, triggers the web retailer's website to send the customer address from their web browser at the same time the credit card information of the consumer is verified by the financial institution of the cardholder.

In order to trigger final tax payment to the proper taxing authority, retailers must also set up an Automated Clearing House (ACH) debit/credit account with the financial institution of their choice. The routing information must be sent to the inventor's website since the invention utilizes these numbers to communicate the

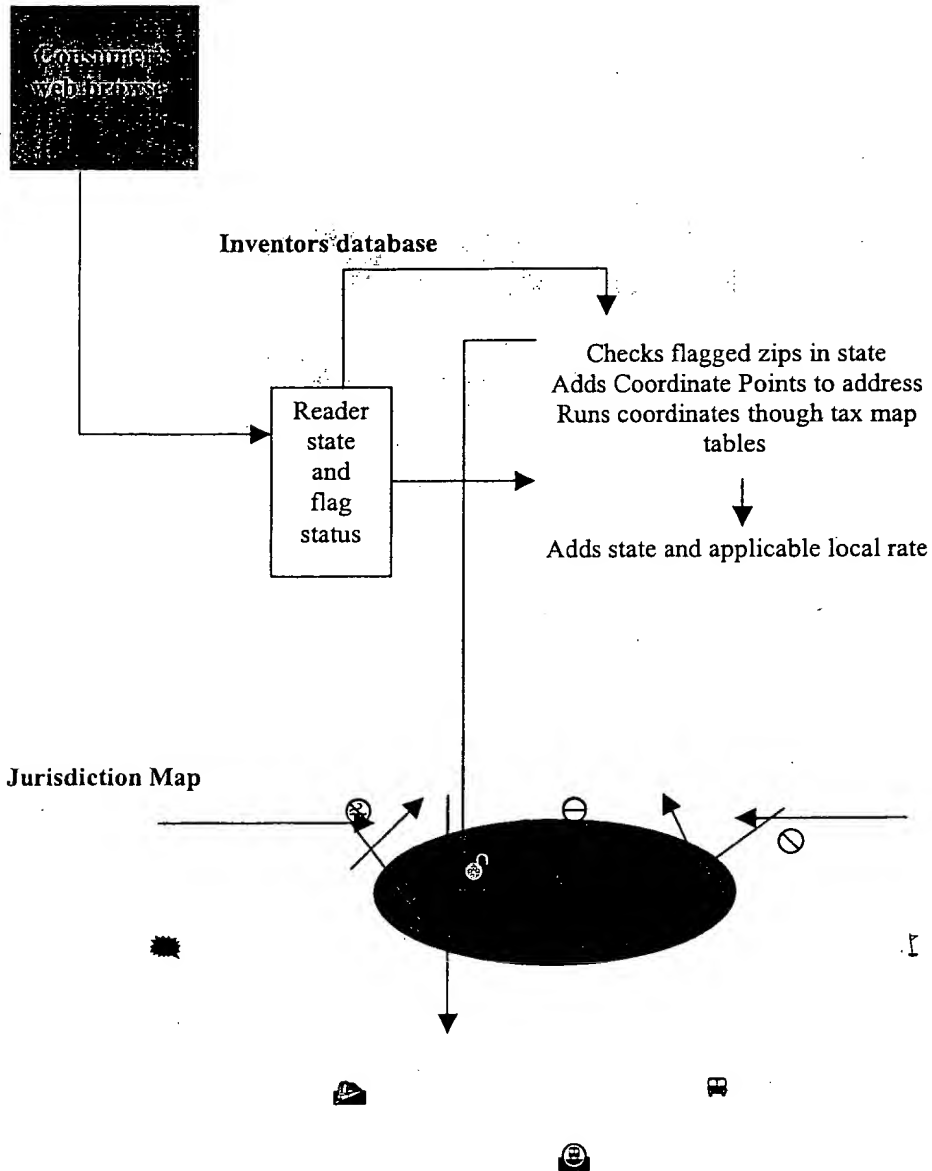
appropriate transaction information to the proper taxing authorities and financial institutions.

FIGURE 3

A retailer or business that exists as a brick and mortar establishment attains the invention as a software package to be used as an add-on to their existing software platform. This package will contain all of the information housed within the inventor's proprietary database. The package is installed onto the retailer's computer and can be opened with the retailer's existing software. Because the software employed by each retailer may vary, the packaging of the invention will be available in a number of different formats so that it can be opened within any software that the retailer chooses to use.

Figure 1

- 1) Customer inputs address
- 2) Address sent to Inventor's database
- 3) Address sent through series of logic tests



Zip/XY/Coordinates Tables		
Customer Coordinate	If between	Then
Latitude X Longitude Y		

Figure 2

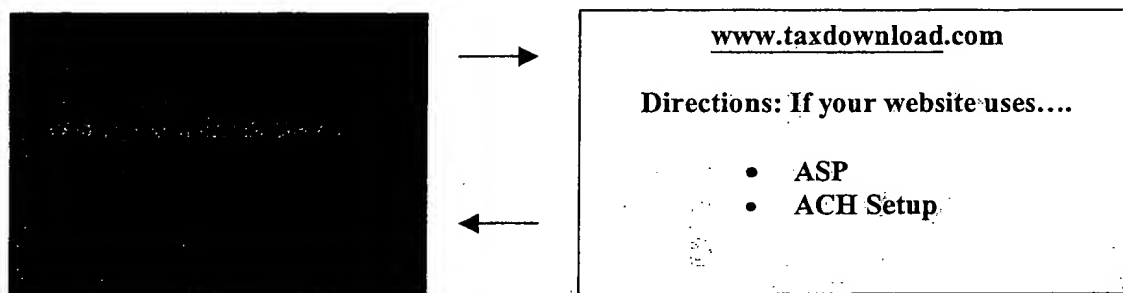
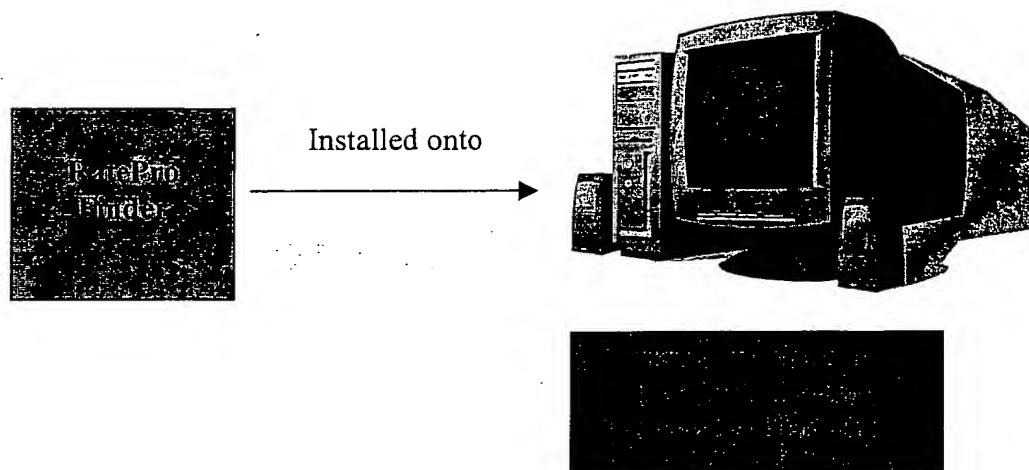
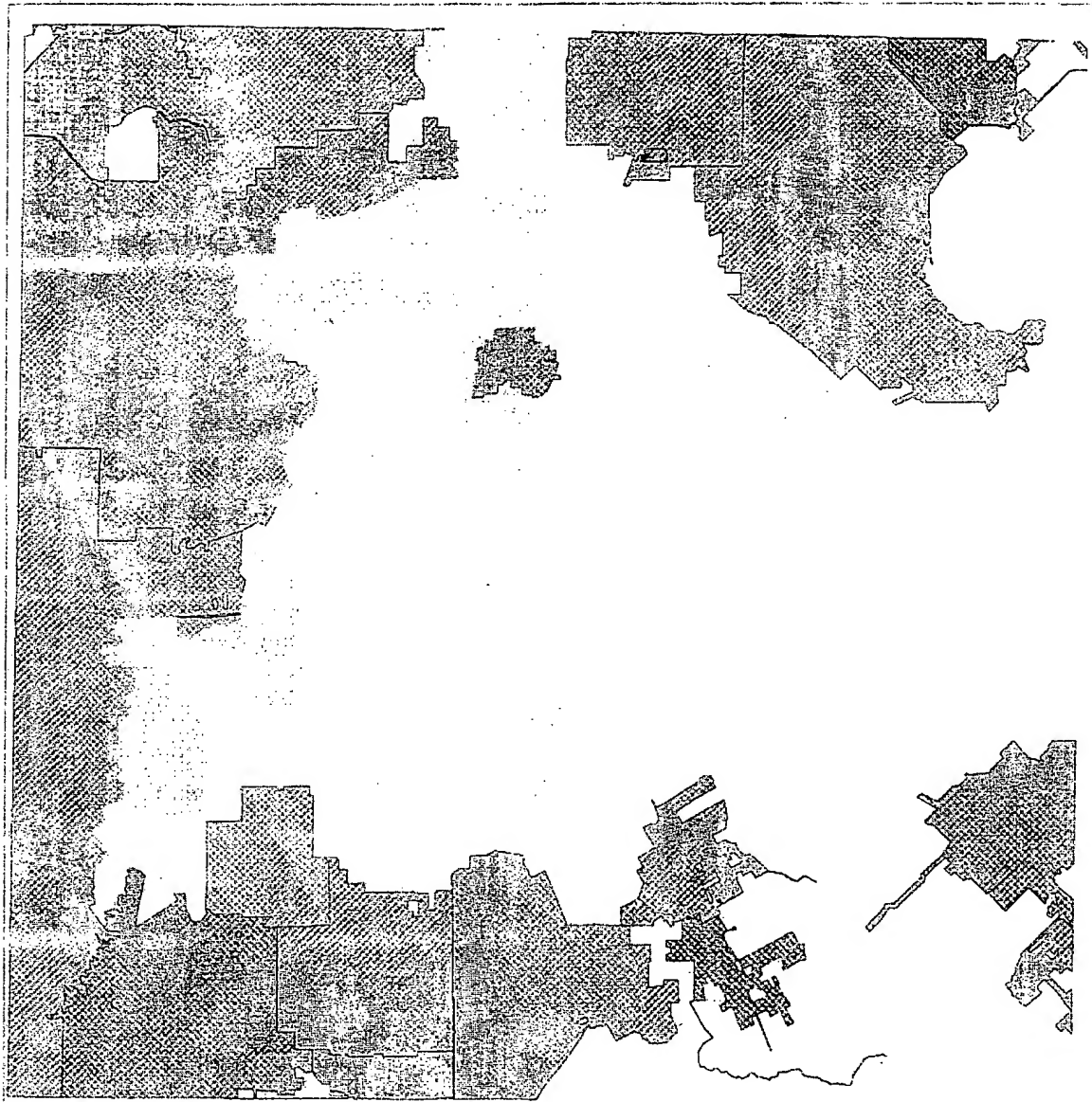


Figure 3



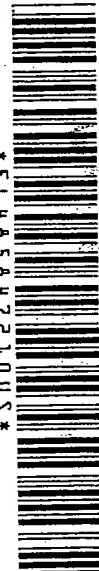
APPENDIX A

MISMATCH OF LOCAL GOVERNMENT AND ZIP CODE BOUNDARIES – DALLAS COUNTY, TEXAS²



² Robert J. Cline and Thomas S. Neubig, "Masters of Complexity and Bearers of Great Burden: The Sales Tax System and the Compliance Costs for Multistate Retailers," Ernst & Young Economics Consulting and Quantitative Analysis, 1 Sept. 1999.

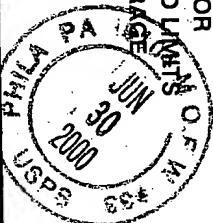
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Federal Agency Acct. No. or
Postal Service Acct. No.

☐ WAIVER OF SIGNATURE (Domestic Only): Additional merchandise insurance is void if waiver of signature is requested. (When delivery is to be made without obtaining signature of addressee or addressee's agent, if delivery employee judges that article can be left in secure location) and I authorize that delivery employee's signature constitutes valid proof of delivery.

NO DELIVERY ☐ Weekend ☐ Holiday

Customer Signature _____

FROM: (PLEASE PRINT)

PHONE: _____
 OFFICE OF THE ATTORNEY GENERAL
 1735 MARKET ST. FL 33
 3200 WILSON BLVD. SUITE 100
 PHILADELPHIA, PA 19103-7501

TO: (PLEASE PRINT)

PHONE: _____
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 Assistant Commissioner
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APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
60/215,285	06/30/2000		75	22529-66132B			

FILING RECEIPT



OC000000005388224

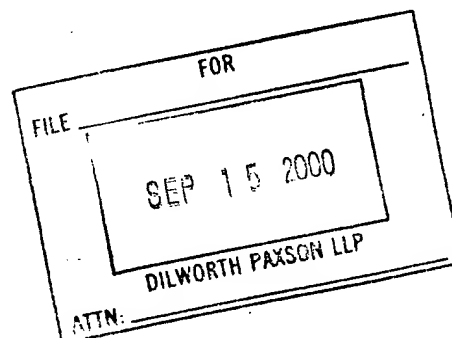
Dilworth Paxson LLP
3200 Mellon Bank Center
1735 Market Street
Philadelphia, PA 19103-7595

Date Mailed: 09/11/2000

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Applicant(s)

Kevin C. Johnson, Villanova, PA ;
Brendan P. Johnson, Villanova, PA ;
John O. Ridley, Schwenksville, PA ;



Continuing Data as Claimed by Applicant

Foreign Applications

If Required, Foreign Filing License Granted 09/08/2000

** SMALL ENTITY **

Title

Sales Tax Determination, Collection, and Remittance System

Preliminary Class

Data entry by : JONES, KIMBERLY

Team : OIPE

Date: 09/11/2000



**LICENSE FOR FOREIGN FILING UNDER
Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15**

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PLEASE NOTE the following information about the Filing Receipt:

- The articles such as "a," "an" and "the" are not included as the first words in the title of an application. They are considered to be unnecessary to the understanding of the title.
- The words "new," "improved," "improvements in" or "relating to" are not included as first words in the title of an application because a patent application, by nature, is a new idea or improvement.
- The title may be truncated if it consists of more than 600 characters (letters and spaces combined).
- The docket number allows a maximum of 25 characters.
- If your application was submitted under 37 CFR 1.10, your filing date should be the "date in" found on the Express Mail label. If there is a discrepancy, you should submit a request for a corrected Filing Receipt along with a copy of the Express Mail label showing the "date in."
- The title is recorded in sentence case.

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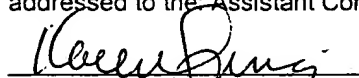
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Kevin C. JOHNSON, Brendan P. JOHNSON and John O. RIDLEY

For: SALES TAX DETERMINATION, COLLECTION, AND REMITTANCE SYSTEM

CERTIFICATION UNDER 37 C.F.R. 1.10

I hereby certify that this correspondence and the documents referred to as attached therein are being deposited with the U.S. Postal Service on June 30, 2000, in an envelope as "EXPRESS MAIL POST OFFICE TO ADDRESSEE" service under 37 C.F.R. 1.10, Mailing Label Number EL485847210US addressed to the Assistant Commissioner for Patents, Washington, DC 20231.


Karen M. Spina

BOX PROVISIONAL PATENT APPLICATION
Assistant Commissioner for Patents
Washington DC 20231

**COVER SHEET FOR FILING PROVISIONAL APPLICATION
(37 CFR § 1.51(c)(1))****This is a request for filing a PROVISIONAL APPLICATION FOR PATENT.**

THE FOLLOWING COMPRISES THE INFORMATION REQUIRED.

NAMES AND RESIDENTIAL ADDRESSES OF THE INVENTOR(S):

- | | | | |
|----|--|-------------------------------|-----------------------------------|
| 1. | Kevin | C. | Johnson |
| | <small>GIVEN NAME</small> | <small>MIDDLE INITIAL</small> | <small>LAST (FAMILY) NAME</small> |
| | 713 Camp Woods, Villanova, PA 19085 | | US |
| | <small>RESIDENTIAL ADDRESS</small> | | <small>CITIZENSHIP</small> |
| 2. | Brendan | P. | Johnson |
| | <small>GIVEN NAME</small> | <small>MIDDLE INITIAL</small> | <small>LAST (FAMILY) NAME</small> |
| | 713 Camp Woods, Villanova, PA 19085 | | US |
| | <small>RESIDENTIAL ADDRESS</small> | | <small>CITIZENSHIP</small> |
| 3. | John | O. | Ridley |
| | <small>GIVEN NAME</small> | <small>MIDDLE INITIAL</small> | <small>LAST (FAMILY) NAME</small> |
| | 9 Barley Sheaf Lane, Schwenksville, PA 19473 | | US |
| | <small>RESIDENTIAL ADDRESS</small> | | <small>CITIZENSHIP</small> |

TITLE OF THE INVENTION: SALES TAX DETERMINATION, COLLECTION, AND REMITTANCE SYSTEM

☐ A power of attorney accompanies this cover sheet.

This invention was made by an agency of the United States Government, or under contract with an agency of the United States government (37 CFR § 1.51(c)(1)(viii)):

☒ No.

☐ Yes. The name of the U.S. Government agency and the government contract number are: _____

IDENTIFICATION OF DOCUMENTS ACCOMPANYING THIS COVER SHEET:

Required:

☒ Specification No. of Pages 3

☐ Drawings No. of Sheets

Additional documents:

☐ Claims No. of Claims

☐ Abstract

☒ Small Entity Statement

☐ Assignment

FEE:

The filing fee for this provision application is:

☐ Other than small entity \$150.00

☒ Applicant is a small entity \$ 75.00

☒ The statement(s) that this is a filing by a small entity under 37 CFR §§ 1.9 and 1.27 are attached.

Fee Payment:

☐ No filing fee is to be paid at this time. (Filing fee and surcharge required by 37 CFR § 1.16(l) can be paid subsequently).

☐ Fee payment in the amount of \$150.00 is being made at this time.

☒ A check in the amount of \$75.00 is enclosed.

☐ Please charge Deposit Account No. 50-0979 in the amount of \$_____. A duplicate of this Cover Sheet is attached.

Date: June 30, 2000



John F. Letchford
Registration No. 33,328

DILWORTH PAXSON LLP
3200 Mellon Bank Center
1735 Market Street
Philadelphia, PA 19103-7595
Tel.: (215) 575-7000

Attorney Docket No: 22529-66132 B

PROVISIONAL

**STATEMENT CLAIMING SMALL ENTITY STATUS
(37 CFR §§ 1.9(f) and 1.27(b)) – INDEPENDENT INVENTOR**

Applicant, Patentee or Identifier: Kevin C. Johnson, Brendan P. Johnson, John O. Ridley

Application Serial No. or Patent No.: Not yet assigned

Filed or Issued: Herewith

Title: SALES TAX DETERMINATION, COLLECTION, AND REMITTANCE SYSTEM

As below-named inventor, I hereby state that I qualify as an independent inventor as defined in 37 C.F.R. § 1.9(c) for purposes of paying reduced fees to the U.S. Patent and Trademark Office described in:

- ☒ the specification filed herewith with title as listed above.
☐ the application identified above.
☐ the patent identified above.

I have not assigned, granted, conveyed, or licensed, and am under no obligation under contract or law to assign, grant, convey, or license, any rights in the invention to any person who would not qualify as an independent inventor under 37 C.F.R. § 1.9(c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 C.F.R. § 1.9(d) or a nonprofit organization under 37 C.F.R. § 1.9(e).

Each person, concern, or organization having any rights in the invention is listed below:

☒ No such person, concern, or organization exists.

Separate statements are required from each named person, concern, or organization having rights to the invention stating their status as small entities. (37 CFR § 1.27).

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time or paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR. § 1.28(b)).

Kevin C. Johnson
NAME OF INVENTOR


SIGNATURE OF INVENTOR

6/30/00
DATE

Brendan P. Johnson
NAME OF INVENTOR


SIGNATURE OF INVENTOR

6/30/00
DATE

John O. Ridley
NAME OF INVENTOR


SIGNATURE OF INVENTOR

6/30/00
DATE

Sales Tax Determination, Collection, And Remittance System

Summary of the Invention

Dryden Matrix Technologies, LLC has developed an invention to address the complex problem of taxing Internet transactions. The invention utilizes product categories within innovative software to provide retailers and state and local government officials with the most accurate and efficient calculation of online tax. Most importantly, the invention does not violate the ruling handed down in *Quill Corp. vs. North Dakota* because it imposes virtually no burden on retailers regarding the calculation or collection of tax revenues.

Dryden has compiled the largest and most accurate database of product categories for all industries, containing close to 1000 classifications for goods and services. This database will continue to grow in size as new products are brought to market in the future. Dryden has identified its current list of categories as taxable or nontaxable for over 7500 taxing jurisdictions in the US. Using this information, Dryden has created the invention to apply the correct amount of tax to a customer's goods and/or services. Using the address information provided by the customer to the retailer's purchasing site, the invention 1) receives the address and product information that the customer submitted to the retailer, 2) recognizes the goods and/or services being purchased by an attached product codes previously assigned to them by Dryden, 3) places the goods and/or services being purchased within one of the product categories in Dryden's master database, 4) assigns the correct tax rate to the goods and/or services if they are determined to be taxable at the purchaser's address, 5) calculates the correct tax amount for the customer purchase, and 6) sends the information back to the retailer in real time to be posted for the customer to review before confirming their purchase order.

The tax determination, collection, and remittance burden would fall on the shoulders of the inventors as shown in the following, more detailed example of an online purchase. (The invention's applications are applicable to both online retailers and brick and mortar operations):

EXAMPLE:

Joe E. Shopper goes online and purchases \$100 of Listerine from CVS.com with his AMEX card for delivery to his house at 123 Main Street in Philadelphia, PA.

Step 1: CVS.com imports programmed code into its website so that their site can transparently communicate with the inventor's proprietary master database containing all product categories and corresponding taxability status. This is done once by the retailer and would entail a simple import of code into the retailer's source code of their web site or into another communication mechanism, such as a server located at the retailer's point of sale.

Step 2: Joe E. Shopper shops the CVS.com site and then electronically selects (places) his purchasing choices and also enters his address.

Step 3: Two scenarios exist for Step 3:

- A. Joe is a typical consumer
- B. Joe is purchasing goods from CVS for an exempt reason.

Under scenario A, Joe E. Shopper then clicks the "Subtotal" button which triggers communication between Joe E. Shopper's web browser, CVS.com's website or point of sale server, and Dryden's proprietary database to communicate. The previously assigned product codes of the items selected and Joe's address are sent electronically to the inventor's database. This database performs a set of logic decisions, including a tax base lookup based on category in which the product codes are placed and a sales tax rate lookup. If the proprietary database has, at an earlier date, flagged Joe's zip code, a more detailed location sales tax rate finder logic which is based on the latitude and longitude of Joe's taxing jurisdiction and delivery address is performed (i.e., the entire country would be tax-mapped by latitude and longitudinal boundaries of each taxing jurisdiction with corresponding rates using existing technology).

Under scenario B, Joe E. Shopper is a purchaser for his employer, a charitable institution that can purchase goods exempt from sales tax in Pennsylvania. The website provides a box in which Joe E. Shopper can check a box if the item(s) are exempt from sales tax. Joe E. Shopper checks the box and then clicks the "Subtotal" button which causes the inventor's proprietary search engine to perform a reflex lookup outlining in a digital table, the goods that Joe E. Shopper had selected. This table is then electronically fired back to the Joe's web browser which is pointed on CVS.com's website or the point of sale server. The table includes the items and two boxes aligned next to each item. The boxes are labeled taxable and non-taxable. If non-taxable is checked next to each item's box, then a drop down list menu of sales tax exemptions pops up which correspond to the destination of the goods, or in this case, the state in which the charitable institution resides. Once Joe E. Shopper has submitted the appropriate exemption information, then the information is sent to the inventor's database for further analysis.

Step 4: Inventor's proprietary database runs a series of logic search engine analysis to determine the tax status and tax rate of the items selected based on their appropriate product categories. The rate, if appropriate, is based on either a zip code + 4 or a logic based latitude and longitude coordinate driven rate adjuster (i.e., the entire country would be tax-mapped by latitude and longitudinal boundaries of each taxing jurisdiction with corresponding rates using existing technology). The inventor's tax calculator then tabulates the appropriate tax and sends this information back to CVS.com or its brick and mortar counterpart.

Step 4:CVS.com then computes the total sales price. In this case the total would be \$107 (\$100 for the Listerine, \$6 for PA state sales tax and \$1 for Philadelphia sales tax.)

Step 5: Joe E. Shopper clicks the "Purchase" button on website. Ordering information is sent to AMEX (or Visa, MasterCard, Discover, etc.) while CVS.com's retailer ID number, the tax amount(s), and taxing jurisdiction ID number(s) are simultaneously sent to the inventor's tax accumulator database and recorded by an internally-generated transaction number only. (Purchaser's information would be transparent throughout the entire process in order to alleviate concerns about consumer privacy issues.)

Step 6: The inventor electronically wires automated clearinghouse (ACH) information to financial institution that transfers aggregate day's tax due from CVS.com to Inventor's escrow account. Thirty-five (35) days later Inventor would transfer the appropriate tax funds to each respective taxing jurisdiction's escrow account. Inventor, as the trusted third-party collector, would benefit from the float earned on taxes held until the monthly disbursement date.



UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO.	DRAWINGS	TOT CLAIMS	IND CLAIMS
60/216,754	07/07/2000		75	22529-66132D	4		

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3200 Mellon Bank Center
1735 Market Street
Philadelphia, PA 19103-7595

FILING RECEIPT



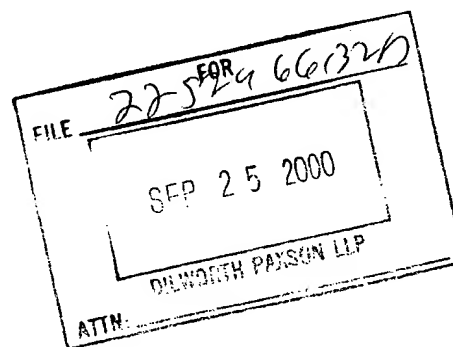
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Date Mailed: 09/18/2000

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Applicant(s)

Kevin C Johnson, Villanova, PA ;
Brendan P Johnson, Villanova, PA ;
John O Ridley, Schwenksville, PA ;



Continuing Data as Claimed by Applicant

Foreign Applications

If Required, Foreign Filing License Granted 09/16/2000

** SMALL ENTITY **

Title

Ratepro finder plus

Preliminary Class

Data entry by : ELLIS, ANDREA

Team : OIPE

Date: 09/18/2000



**LICENSE FOR FOREIGN FILING UNDER
Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15**

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- The words "new," "improved," "improvements in" or "relating to" are not included as first words in the title of an application because a patent application, by nature, is a new idea or improvement.
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Docket No	22529-66132D	Application	07/07/2000
Country	United States	Patent No	
Case Type	Provisional Filing	Grant Dt	
Relation Typ	Original Filing	Publication	
Filing Type	National	Publication	
Filing No		Assigned	
Attorney	John F. Letchford	Expiration D	07/07/2001
Agent		Conv Type	First Filed Case
Client\Divis	Dryden Matrix Technologies	Tax Base Dt	
Current Owne		Next Tax Dt	
Prev Own		Associate	
Status	Filed	Oper Grp	
First Filing	07/07/2000	Ag Ref No	
Sub Stat		Client Docke	
Sub Stat Dt		Frng. Asc. D	
Parent Count		Verified	N
Parent Filin		Customer	DSPP
Parent No		Create Dt	07/08/2000
Parent Grant		Update Dt	09/25/2000
Total Claims		Update Tm	1554
Ind. Claims		Update User	KMS
Application	60/216,754	Update Type	

** Actions **

Action	Review USA - 6 month remin	Comp Dt
Act Due Date	01/07/2001	Resp Atty #1
Taken Dt		Resp Atty #2
DeadLn Dt		

Action	Review foreign - 6 month r	Comp Dt
Act Due Date	01/07/2001	Resp Atty #1
Taken Dt		Resp Atty #2
DeadLn Dt		

Action	Review foreign - 9 month r	Comp Dt
Act Due Date	04/07/2001	Resp Atty #1
Taken Dt		Resp Atty #2
DeadLn Dt		

Action	Review USA - 9 month remin	Comp Dt
Act Due Date	04/07/2001	Resp Atty #1
Taken Dt		Resp Atty #2
DeadLn Dt		

Action	Review USA - 11 month remi	Comp Dt
Act Due Date	06/07/2001	Resp Atty #1
Taken Dt		Resp Atty #2
DeadLn Dt		

Action	Review foreign - 11 month	Comp Dt
Act Due Date	06/07/2001	Resp Atty #1
Taken Dt		Resp Atty #2
DeadLn Dt		

Action	Foreign Filing to be Compl	Comp Dt
Act Due Date	07/07/2001	Resp Atty #1
Taken Dt		Resp Atty #2
DeadLn Dt		

09/25/2000

Patent Information Print

Page: 2

Action File By Due Date
Act Due Date 07/07/2001
Taken Dt
DeadLn Dt

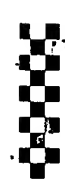
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Resp Atty #1
Resp Atty #2

Action Filing Receipt
Act Due Date
Taken Dt
DeadLn Dt

Comp Dt 09/16/2000
Resp Atty #1
Resp Atty #2

** Title **

Title RatePro Finder Plus



Attorney Docket No: 22529-66132 D

PROVISIONAL

**STATEMENT CLAIMING SMALL ENTITY STATUS
(37 CFR §§ 1.9(f) and 1.27(b)) -- INDEPENDENT INVENTOR**

Applicant, Patentee or Identifier: Kevin C. Johnson, Brendan P. Johnson, John O. Ridley

Application Serial No. or Patent No.: Not yet assigned

Filed or Issued: Herewith

Title: RATEPRO FINDER PLUS

As below-named inventor, I hereby state that I qualify as an independent inventor as defined in 37 C.F.R. § 1.9(c) for purposes of paying reduced fees to the U.S. Patent and Trademark Office described in:

- ☒ the specification filed herewith with title as listed above.
- ☐ the application identified above.
- ☐ the patent identified above.

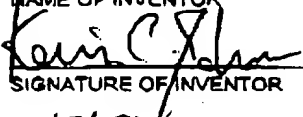
I have not assigned, granted, conveyed, or licensed, and am under no obligation under contract or law to assign, grant, convey, or license, any rights in the invention to any person who would not qualify as an independent inventor under 37 C.F.R. § 1.9(c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 C.F.R. § 1.9(d) or a nonprofit organization under 37 C.F.R. § 1.9(e).

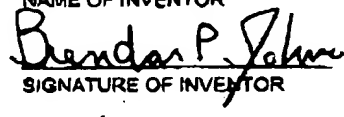
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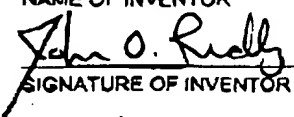
☒ No such person, concern, or organization exists.

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Kevin C. Johnson
NAME OF INVENTOR

SIGNATURE OF INVENTOR
7/7/00
DATE

Brendan P. Johnson
NAME OF INVENTOR

SIGNATURE OF INVENTOR
7/7/00
DATE

John O. Ridley
NAME OF INVENTOR

SIGNATURE OF INVENTOR
7/7/00
DATE

**STATEMENT CLAIMING SMALL ENTITY STATUS
(37 CFR §§ 1.9(f) and 1.27(b)) -- INDEPENDENT INVENTOR**

Applicant, Patentee or Identifier: Kevin C. Johnson, Brendan P. Johnson, John O. Ridley

Application Serial No. or Patent No.: Not yet assigned

Filed or Issued: Herewith

Title:

As below-named inventor, I hereby state that I qualify as an independent inventor as defined in 37 C.F.R. § 1.9(c) for purposes of paying reduced fees to the U.S. Patent and Trademark Office described in:

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Kevin C. Johnson
NAME OF INVENTOR

Brendan P. Johnson
NAME OF INVENTOR

John O. Ridley
NAME OF INVENTOR

SIGNATURE OF INVENTOR

SIGNATURE OF INVENTOR

SIGNATURE OF INVENTOR

DATE

DATE

DATE

LAST TRANSACTION REPORT FOR HP FAX-700 SERIES

VERSION: 01.03

FAX NAME: DPKK
FAX NUMBER: 5068

DATE: 07-JUL-00
TIME: 11:16

DATE	TIME	REMOTE FAX NAME AND NUMBER	DURATION	PG	RESULT	DIAGNOSTIC
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Docket No.: 22529-66132D Applicant: Dryden Matrix
Serial No.: n/a Attorney: JFL
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UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Dryden Matrix

Docket No.: 22529-66132D Attorney: JFL

Serial No.: 7/a

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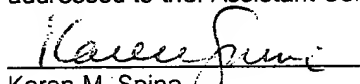
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Kevin C. JOHNSON, Brendan P. JOHNSON and John O. RIDLEY

For: RATEPRO FINDER PLUS

CERTIFICATION UNDER 37 C.F.R. 1.10

I hereby certify that this correspondence and the documents referred to as attached therein are being deposited with the U.S. Postal Service on July 7, 2000, in an envelope as "EXPRESS MAIL POST OFFICE TO ADDRESSEE" service under 37 C.F.R. 1.10, Mailing Label Number EL485847170US addressed to the: Assistant Commissioner for Patents, Washington, DC 20231.


Karen M. Spina

BOX PROVISIONAL PATENT APPLICATION
Assistant Commissioner for Patents
Washington DC 20231

**COVER SHEET FOR FILING PROVISIONAL APPLICATION
(37 CFR § 1.51(c)(1))****This is a request for filing a PROVISIONAL APPLICATION FOR PATENT.****THE FOLLOWING COMPRISES THE INFORMATION REQUIRED.****NAMES AND RESIDENTIAL ADDRESSES OF THE INVENTOR(S):**

- | | | | |
|----|--|-------------------------------|-----------------------------------|
| 1. | Kevin | C. | Johnson |
| | <small>GIVEN NAME</small> | <small>MIDDLE INITIAL</small> | <small>LAST (FAMILY) NAME</small> |
| | 713 Camp Woods, Villanova, PA 19085 | | US |
| | <small>RESIDENTIAL ADDRESS</small> | | <small>CITIZENSHIP</small> |
| 2. | Brendan | P. | Johnson |
| | <small>GIVEN NAME</small> | <small>MIDDLE INITIAL</small> | <small>LAST (FAMILY) NAME</small> |
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| | <small>RESIDENTIAL ADDRESS</small> | | <small>CITIZENSHIP</small> |
| 3. | John | O. | Ridley |
| | <small>GIVEN NAME</small> | <small>MIDDLE INITIAL</small> | <small>LAST (FAMILY) NAME</small> |
| | 9 Barley Sheaf Lane, Schwenksville, PA 19473 | | US |
| | <small>RESIDENTIAL ADDRESS</small> | | <small>CITIZENSHIP</small> |

TITLE OF THE INVENTION:

☐ A power of attorney accompanies this cover sheet.

This invention was made by an agency of the United States Government, or under contract with an agency of the United States government (37 CFR § 1.51(c)(1)(viii)):

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☐ Yes. The name of the U.S. Government agency and the government contract number are: _____

IDENTIFICATION OF DOCUMENTS ACCOMPANYING THIS COVER SHEET:

Required:

☒ Specification No. of Pages 5

☒ Drawings No. of Sheets 4

Additional documents:

☐ Claims No. of Claims

☐ Abstract

☒ Small Entity Statement

☐ Assignment

☒ Appendix A No. of Sheets 1

ATTORNEY DOCKET NO. 22529-66132D

FEE:

The filing fee for this provision application is:

☐ Other than small entity \$150.00

☒ Applicant is a small entity \$ 75.00

☒ The statement(s) that this is a filing by a small entity under 37 CFR §§ 1.9 and 1.27 are attached.

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Date: July 7, 2000



John F. Letchford
Registration No. 33,328

DILWORTH PAXSON LLP
3200 Mellon Bank Center
1735 Market Street
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Tel.: (215) 575-7000

Attorney Docket No: 22529-66132 D

To: K SPINA

PROVISIONAL

STATEMENT CLAIMING SMALL ENTITY STATUS
(37 CFR §§ 1.9(f) and 1.27(b)) – INDEPENDENT INVENTOR

Applicant, Patentee or Identifier: Kevin C. Johnson, Brendan P. Johnson, John O. Ridley

Application Serial No. or Patent No.: Not yet assigned

Filed or Issued: Herewith

Title: RATEPRO FINDER PLUS

As below-named inventor, I hereby state that I qualify as an independent inventor as defined in 37 C.F.R. § 1.9(c) for purposes of paying reduced fees to the U.S. Patent and Trademark Office described in:

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Kevin C. Johnson

NAME OF INVENTOR

Kevin C. Johnson
SIGNATURE OF INVENTOR

7/7/00
DATE

Brendan P. Johnson

NAME OF INVENTOR

Brendan P. Johnson
SIGNATURE OF INVENTOR

7/7/00
DATE

John O. Ridley

NAME OF INVENTOR

John O. Ridley
SIGNATURE OF INVENTOR

7/7/00
DATE

Provisional Patent Application of

Kevin Johnson, Brendan Johnson, and John Ridley

for

TITLE: RatePro Finder Plus

BACKGROUND—FIELD OF THE INVENTION

This invention relates to the determination of state and local tax rates for all vicinities around the world, given the address at which the appropriate rate must be identified.

BACKGROUND—DESCRIPTION OF PRIOR ART

Sales tax was created to serve as an additional source of revenues to governments at all levels. Levied at the time of purchase, sales tax is imposed only on certain goods and services deemed taxable by state and local governments. The imposition of sales tax is based on where a particular product or service is delivered. Thus, sellers of goods and services, especially those that have businesses with Nexus¹ (physical presence) in the state of delivery, such as telecommunications companies, must apply the correct tax rate when billing their customers. In certain situations, applying the correct rate can be a daunting task since over 7,500 jurisdictions in the United States impose their own rates.

The vast majority of jurisdictional boundaries of most local governments can be defined simply by using commercially available mapping software (usually approved by the US Postal Office) that applies the tax rate based on zip and zip + 4 delivery addresses. Zip codes, including zip + 4 codes, can be used to determine the proper taxing jurisdiction with an approximate 89% accuracy rate. Although this accuracy rate may seem significant, the fiscal impact of its shortcomings is a concern and burden for many smaller local governments. An example of these critical inaccuracies may better serve to show the governments' current dilemma. One address of a commercially busy street in Denver may be taxed at one rate, while the address across the street is taxed at a different rate yet both reside in the same zip + 4 area code. Appendix A depicts a digital map of Dallas County, TX where zip + 4 coding creates inaccuracies similar to those described above.

This environment poses a difficult task for retailers as well. The failure of this system is easily observed since certain zip codes and zip + 4 codes fall into two taxing jurisdictions. In such a case, retailers are faced with a guessing game of

¹ Internet Tax Freedom Act, 1998.

which tax rate to apply. This poses a dilemma for retailers with Nexus in the state of delivery since they are liable for any mistakes made in applying the incorrect tax.

DETAILED DESCRIPTION OF THE INVENTION

The invention significantly increases the accuracy rate of aligning an address with the proper taxing jurisdiction above the accuracy previously available by using zip and zip+4 coding. All physical addresses reside within a particular state county. Furthermore, each address falls within a smaller subdivision of a county, such as a township, borough, and parish. Most taxing jurisdictions fall within clearly defined boundaries and apply tax rates according to these areas. The invention utilizes commercially available census information to identify each of these unique taxing jurisdictions by assigning particular codes to each of them. Counties receive a unique FIPS (Federal Information Processing Standard) code that contains a combination of letters and numbers. The smaller jurisdictions are marked with a MCD (Minor Civil Division) code containing a number combination.

The inventor places this compiled data, consisting of a FIPS and MCD code for all taxing jurisdictions, into a proprietary database. These codes are then used in conjunction with specific decision logic, such as Boolean logic. When given the send-to address information from a purchase, the invention identifies the specific FIPS and MCD codes associated with the given address. Then the invention's database places the address into an IF, THEN statement where, if the address codes specify that the address falls within a certain taxing jurisdiction, then the purchase sent to that address is taxed at that jurisdiction's tax rate. This logic is applied to the address until its codes are matched with the correct taxing jurisdiction.

The adaptive system of the present invention may reside in different forms depending on the type of retailer that is using the invention. If the retailer conducts commerce via the Internet, then the invention will reside on a multiple server environment with massive parallel processors and multiple broadband Internet connections. The adaptive system must reside on a number of redundant relational databases capable of real-time delivery of information and have the ability to store and deliver thousands of multiple sales tax decisions while simultaneous correspondence with multiple retailers' websites. To communicate with these remote servers, web retailers must add lines of code into the source code of their commercial web site. When a purchase is made through that site, the inserted code identifies the particular retailer, transmits the address information to the inventor's server, and then transmits the taxing information back to the retailer's website.

If the retailer has a brick and mortar operation, the invention will be packaged as an add-on to the retailer's existing software platform, such as an Oracle database. There will be no communication with the remote servers that are used by web retailers since the software add-on will contain all of the information in the proprietary database that is housed within the remote server.

The applications of this invention are unbounded. Web retailers, such as Ebay, can use the invention to correctly apply tax to purchases made through their web sites. Telecommunication companies, such as AT&T, can use the invention to apply accurate tax to billing statements that detail individual telephone calls. Also, mail order companies can determine the tax for purchases sent around the globe in real time with the use of the invention.

DRAWING FIGURES

The invention will become more readily apparent from the following description of preferred embodiments thereof shown, by way of example only, in the accompanying drawings, wherein:

Figure 1 is a simple schematic view of how web retailers can communicate with the inventor's remote database to acquire the correct tax rate for individual online purchases, given the purchaser's send-to address.

Figure 2 is a simple schematic view of a presently preferred process by which a web retailer downloads the necessary communication software from the inventor's web site.

Figure 3 is a simple schematic view of how the invention can be applied to brick and mortar operations, packaging the database to work in conjunction with the brick and mortar retailer's existing software platform.

DESCRIPTION—FIGURE 1

All addresses are associated with a taxing jurisdiction. The invention houses the sales tax rates of all state and local jurisdiction tax rates with matching FIPS and MCD codes within a proprietary database compiled by the inventor, as depicted in Figure 1. The software and hardware that house this database are domiciled at a data center in a remote location from all web retailers.

The invention implements flags on codes that fall within two or more taxing jurisdictions maintaining different sales tax rates. The invention uses reader technology to identify flagged codes that match addresses sent online to the

inventor's database. Then the invention uses logic rules, including Boolean Logic, Fuzzy Logic and interference engines to determine the correct taxing jurisdiction within which the purchaser's address falls.

The invention applies the correct taxing rate to products or services based on the non-flagged or flagged address and codes for final tax calculation using the inventor's tax accumulator in real-time and remits this information to the web retailer.

The invention accepts real-time state and local changes in tax rates. Tax boundary changes can be updated within seven days of receiving an updated listing of census codes from a local jurisdiction.

FIGURE 2

To initiate communication from the retailer to the inventor's website, the retailer must first add the appropriate software code to their website as illustrated in Figure 2. This code must be added to the source code used to build the site of the web retailer. One part of this code used to establish the link is an IP address or Uniform Resource Locator (URL). Since website designers use numerous languages to create websites, the free download of code from the inventor's website is written in all programming languages that are currently used to create websites. Web retailers also have the option of writing their own code to communicate with Inventor's website if this presents itself to be a less burdensome solution.

The software code, placed within the web retailer's source code, triggers the web retailer's website to send the customer address from their web browser at the same time the credit card information of the consumer is verified by the financial institution of the cardholder.

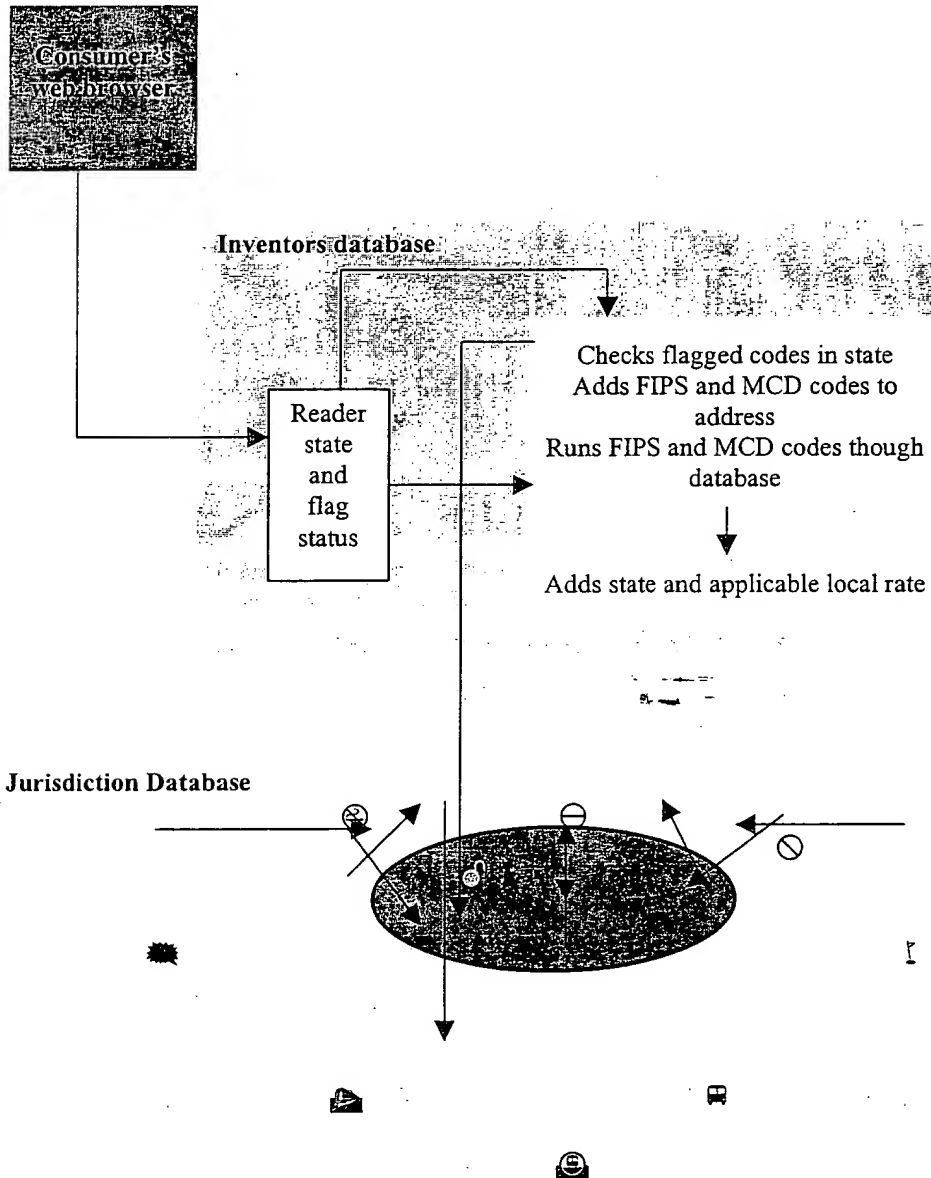
In order to trigger final tax payment to the proper taxing authority, retailers must also set up an Automated Clearing House (ACH) debit/credit account with the financial institution of their choice. The routing information must be sent to the inventor's website since the invention utilizes these numbers to communicate the appropriate transaction information to the proper taxing authorities and financial institutions.

FIGURE 3

A retailer or business that exists as a brick and mortar establishment attains the invention as a software package to be used as an add-on to their existing software platform. This package will contain all of the information housed within the inventor's proprietary database. The package is installed onto the retailer's computer and can be opened with the retailer's existing software. Because the software employed by each retailer may vary, the packaging of the invention will be available in a number of different formats so that it can be opened within any software that the retailer chooses to use.

Figure 1

- 1) Customer inputs address
- 2) Address sent to Inventor's database
- 3) Address sent through series of logic tests



FIPS and MCD Codes Table		
Customer Address Codes	If between	Then

Figure 2

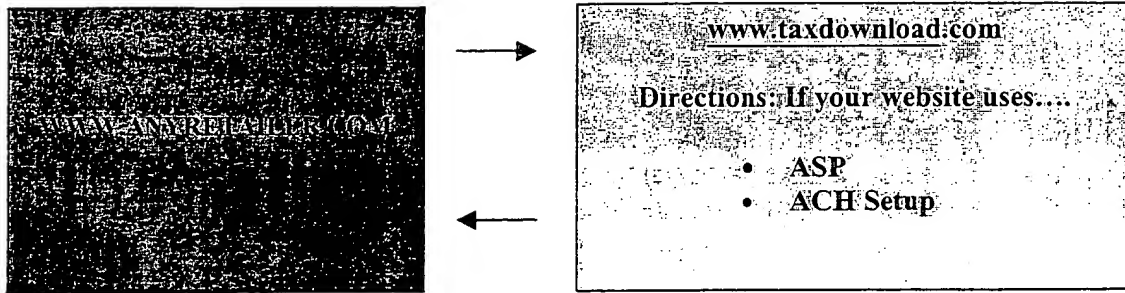
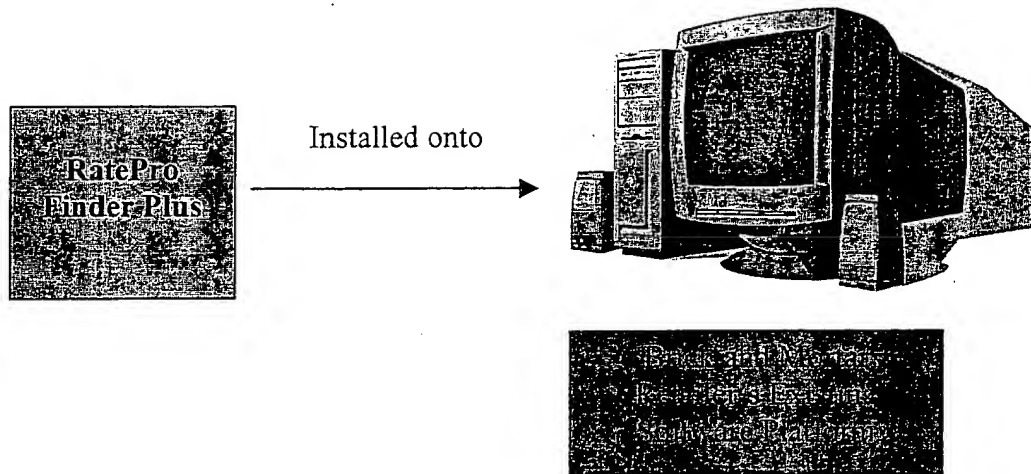
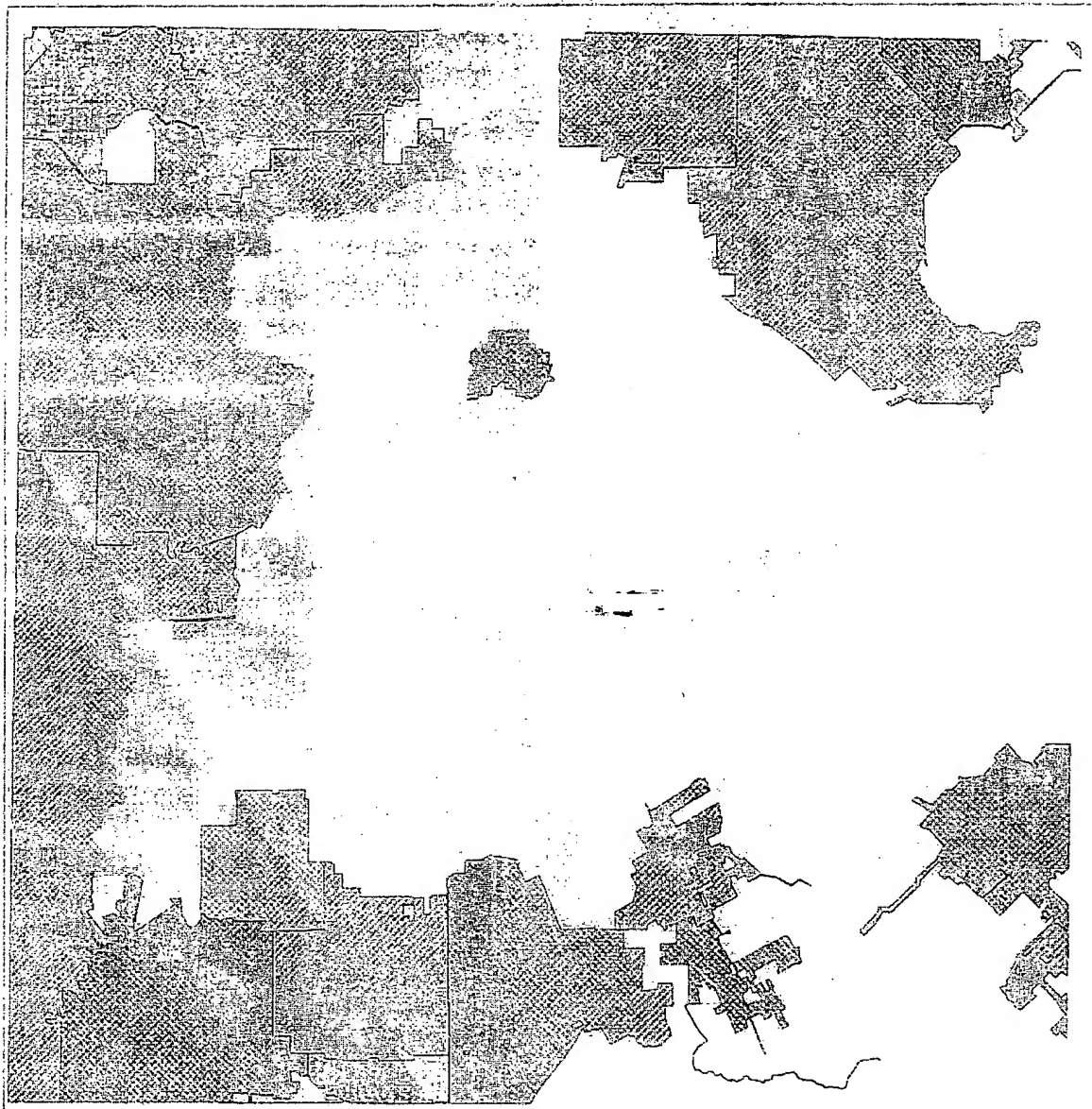


Figure 3



APPENDIX A

MISMATCH OF LOCAL GOVERNMENT AND ZIP CODE BOUNDARIES – DALLAS COUNTY, TEXAS²



² Robert J. Cline and Thomas S. Neubig, "Masters of Complexity and Bearers of Great Burden: The Sales Tax System and the Compliance Costs for Multistate Retailers," Ernst & Young Economics Consulting and Quantitative Analysis, 1 Sept. 1999.



UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO.	DRAWINGS	TOT CLAIMS	IND CLAIMS
60/216,755	07/07/2000		75	22529-66132E	1		

Dilworth Paxson LLP
3200 Mellon Bank Center
1735 Market Street
Philadelphia, PA 19103-7595

FILING RECEIPT



OC000000005419506

Date Mailed: 09/22/2000

Receipt is acknowledged of this provisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the PTO processes the reply to the Notice, the PTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)

Kevin C. Johnson, Villanova, PA ;
Brendan P. Johnson, Villanova, PA ;
John O. Ridley, Schwenksville, PA ;

Continuing Data as Claimed by Applicant

Foreign Applications

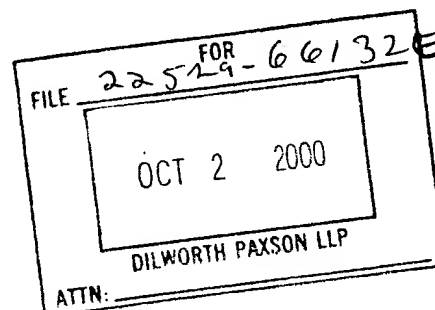
If Required, Foreign Filing License Granted 09/21/2000

** SMALL ENTITY **

Title

System for remitting the correct sales tax to the proper taxing authority

Preliminary Class



Data entry by : JONES, KIMBERLY

Team : OIPE

Date: 09/22/2000



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Applicant: Dryden Matrix

Attorney: JFL

Attorney: JFL

Attorney: JFL

Attorney: JFL

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Docket No.: 22529-661325

Serial No.: n/a

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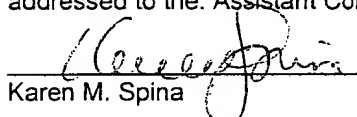
07/07/00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Kevin C. JOHNSON, Brendan P. JOHNSON and John O. RIDLEY

For: SYSTEM FOR REMITTING THE CORRECT SALES TAX TO THE PROPER
TAXING AUTHORITY**CERTIFICATION UNDER 37 C.F.R. 1.10**

I hereby certify that this correspondence and the documents referred to as attached therein are being deposited with the U.S. Postal Service on July 7, 2000, in an envelope as "EXPRESS MAIL POST OFFICE TO ADDRESSEE" service under 37 C.F.R. 1.10, Mailing Label Number EL485847170US addressed to the: Assistant Commissioner for Patents, Washington, DC 20231.


Karen M. Spina

BOX PROVISIONAL PATENT APPLICATION
Assistant Commissioner for Patents
Washington DC 20231

**COVER SHEET FOR FILING PROVISIONAL APPLICATION
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| | <small>GIVEN NAME</small> | <small>MIDDLE INITIAL</small> | <small>LAST (FAMILY) NAME</small> |
| | 9 Barley Sheaf Lane, Schwenksville, PA 19473 | | US |
| | <small>RESIDENTIAL ADDRESS</small> | | <small>CITIZENSHIP</small> |

TITLE OF THE INVENTION:

☐ A power of attorney accompanies this cover sheet.

This invention was made by an agency of the United States Government, or under contract with an agency of the United States government (37 CFR § 1.51(c)(1)(viii)):

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☒ Drawings No. of Sheets 1

Additional documents:

☐ Claims No. of Claims

☐ Abstract

☒ Small Entity Statement

☐ Assignment

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☒ Applicant is a small entity \$ 75.00

☒ The statement(s) that this is a filing by a small entity under 37 CFR §§ 1.9 and 1.27 are attached.

Fee Payment:

☐ No filing fee is to be paid at this time. (Filing fee and surcharge required by 37 CFR § 1.16(l) can be paid subsequently).

☒ Fee payment in the amount of \$75.00 is being made at this time.

☐ check in the amount of \$____ is enclosed.

☒ Please charge Deposit Account No. 50-0979 in the amount of \$____. A duplicate of this Cover Sheet is attached.

Date: July 7, 2000



John F. Letchford
Registration No. 33,328

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7-07-2000 2:41PM

FROM DR 3068

P. 2

Attorney Docket No: 22529-68132 E

PROVISIONAL

**STATEMENT CLAIMING SMALL ENTITY STATUS
(37 CFR §§ 1.9(f) and 1.27(b)) -- INDEPENDENT INVENTOR**

Applicant, Patentee or Identifier: Kevin C. Johnson, Brendan P. Johnson, John O. Ridley

Application Serial No. or Patent No.: Not yet assignedFiled or Issued: HerewithTitle: **SYSTEM FOR REMITTING THE CORRECT SALES TAX TO THE PROPER TAXING AUTHORITY**

As below-named inventor, I hereby state that I qualify as an independent inventor as defined in 37 C.F.R. § 1.9(c) for purposes of paying reduced fees to the U.S. Patent and Trademark Office described in:

- ☒ the specification filed herewith with title as listed above.
☐ the application identified above.
☐ the patent identified above.

I have not assigned, granted, conveyed, or licensed, and am under no obligation under contract or law to assign, grant, convey, or license, any rights in the invention to any person who would not qualify as an independent inventor under 37 C.F.R. § 1.9(c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 C.F.R. § 1.9(d) or a nonprofit organization under 37 C.F.R. § 1.9(e).

Each person, concern, or organization having any rights in the invention is listed below:

- ☒ No such person, concern, or organization exists.

Separate statements are required from each named person, concern, or organization having rights to the invention stating their status as small entities. (37 CFR § 1.27).

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time or paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR. § 1.28(b)).

Kevin C. Johnson
NAME OF INVENTOR

SIGNATURE OF INVENTOR

DATE

Brendan P. Johnson
NAME OF INVENTOR

SIGNATURE OF INVENTOR

DATE

John O. Ridley
NAME OF INVENTOR

SIGNATURE OF INVENTOR

DATE

FIELD OF THE INVENTION

The present invention relates in general to systems used for accepting sales tax exemption certificates, for providing real-time reports to state and local taxing jurisdictions and retailers, and finally for creating the back office system that remits the correct sales tax to the proper taxing authority.

BACKGROUND OF THE INVENTION

The US Constitution allows state sovereignty with respect to the states' ability to impose taxes on goods and services sold within each states' border. One of the most common methods that states impose tax is through a transaction tax, most commonly referred to as sales tax. Currently, forty-five states impose sales tax.

States legislatures allow flexibility in imposing sales tax on enumerated goods and services. Industries and individual companies, both historically and currently allow certain uses of goods and services to be exempted from sales tax. An exemption from sales tax must be based on the use of a particular good or service. For example, the Commonwealth of Pennsylvania imposes sales tax on computers. However, computers can be bought exempt from sales tax if used in research and development, in manufacturing, or in charitable institutions or political subdivisions (the latter two are exempted across all states). Political, social, and industrial lobbying groups, as well as individual companies, lobby state legislatures for exemptions that create a financial incentive for their particular concern. Legislatures have sought to create benefits for taxpayers in their state jurisdiction by providing financial incentives to targeted industries, sectors, or companies. Thus, the use of exemptions and exclusions encourages greater economic activity.

Companies, political governments, charitable institutions, and businesses procuring goods and services for an exempt purpose commonly provide an exemption certificate to the vendor illustrating the exempt manner in which the good or service are used. By accepting this exemption certificate, the vendor safeguards itself from an audit liability from the state or local jurisdiction in which the vendor operates.

CURRENT METHOD OF ACCEPTING EXEMPTION CERTIFICATES

Businesses or institutions that seek to utilize sales tax exemption certificates must apply and register to each state in which they intend on using an exemption certificate. Once this application is received, states then issue an exclusive sales tax exemption number for the particular taxpayer. Businesses such as General Electric would issue multiple exemption numbers for each state in which they operate as well as for each separate subsidiary.

Dell Computer Corporation, one of the largest web retailers, utilizes a traditional method when allowing entities to purchase computers and related computer equipment under an exemption. Dell's traditional exemption choice model requires that the customer call a

Dell service representative and provide exemption status information in order to process the transaction. However, the consumer must first call a Dell service representative and establish an account as well as provide an exemption number to Dell. This is the typical model for web retailers whose primary target market is business, political, or charitable entities that routinely allow their customers the ability to purchase goods and services without paying sales tax.

Example:

General Electric (GE) of New Jersey purchases computers through Dell Corporation's website. GE will use these computers for research and development for their plant operations. GE personnel are aware that computers used for research and development in New Jersey can be purchased exempt from sales tax by using a standard New Jersey ST-5 research and development exemption certificate. Dell requires that customers such as GE, must first call a Dell customer representative and provide their exemption information. Dell then stores this information for their own records as well as for state and local taxing authorities.

Dell Corporation files a sales tax return in New Jersey and is thus required to provide the State of New Jersey information regarding its sales into New Jersey as well as exemption information associated with those sales. General Electric of New Jersey is also required by New Jersey to maintain records of purchases made using exemption certificates. These records of exemption purchases safeguard both Dell and General Electric from audit liability.

THE INVENTION

Currently, retailers do not provide real time interactive pop up menus of sales tax exemptions on their website or on their customers web browser for goods and services sold from their website.

The invention, the Exemption Acceptor and Jurisdiction Reporter, provides the retailer and the customer a much more efficient and cheaper method to purchase goods and services from the retailer's website. Additionally, the invention allows a much more effective method to record exempt transactions for both the retailer and consumer. This saving of time and resources on both the retailer and customer behalf provides a competitive advantage for the retailer.

As illustrated in Figure 5, once the consumer has completed their purchase choices, the web retailer provides a list of the consumer's final selections. At this point, a small box on the retailer's website queries the consumer if any of the selections will be bought using an exemption number or similar number, such as a sales tax exemption number. The consumer utilizing an exemption, usually a charitable institution or a business engaging in an exempt activity, inputs the appropriate exemption numbers into the appropriate line. The consumer then depresses the submit button on the retailers website.

This action then routes the product and/or service identification numbers (either a UPC, category code, or the retailer's custom code) as well as the delivery information of the consumer to the inventor's database. Here, the selected products or services can be translated into the standard UPC's or USC's used by the inventor. The database engine determines the exemption number and reason code by conducting an automated search through another relational database.

Once the search has found a match, the state's total exemption codes and reasons of the purchaser are sent to the browser of the purchaser along with a mirrored list of the consumer's selected choices. The consumer choices are placed in an electronic pop up table on the left hand side of the table in a scrolling list view. To the right of each good or service chosen, are two side-by-side boxes. Each box's header at the table is vertically aligned with each box as depicted in Figure 6B. The left side box is titled "Taxable." The right side is titled "Non-taxable." Each left box is interactive and provides an electronic space in which a consumer can click if the choice is "Taxable." The right side box is titled "Exempt." The consumer is led to choose a tax status for each selection. If the consumer clicks taxable, then this information is also recorded by the invention. If the consumer clicks the "Exempt" box, an exemption code drop down list of exemptions that is associated with the state in which the products or goods chosen by the consumer are delivered appears.

In the example used earlier, a General Electric purchasing agent may choose to purchase computers used both in research and development (exempt) and in administration (taxable). Thus, both the retailer and purchaser would have the option of choosing the tax status for each item selected.

On a similar note, a purchasing agent from a charitable institution, such as the Red Cross, could purchase all items selected from a Dell website under an exempt status. Therefore, the invention creates a more efficient method for purchasers procuring all goods and services under an exempt status because they can simply select a box that allows all exempt purchases to fall under one exempt category.

A box on the title bar using the same exemption code for each selection is shown in Figure 6B as well. This is intended to save time on the part of the consumer. Once the consumer has completed the tax exemption acceptor table, the information is then sent electronically to the inventor's database for total tax tabulation. The final tax calculated is then sent electronically to the consumer's web browser for viewing and/or completing the transaction. Once the transaction is complete, the transaction information is tagged, assigned a transaction number, sent to the inventor's Jurisdiction Reporter database module, and then transmitted to the retailer and the purchaser.

INDUSTRY VERTICAL NETS AND BUYING COMMUNITIES

A number of businesses and consortium, such as Vertical Net, Commerce One, and BAE Systems have created vertical, horizontal, industry, and regional buying communities. Many of these Vertical Nets will eventually become global trading webs and global

trading portals. Businesses, particularly large businesses around the world have recently created vertices online in which industry participants and their suppliers can buy and sell goods through a unique channel, called vertical nets. Thus, numerous consumers (usually businesses) and their suppliers are aggregating in one space. The merchant of record and/or 3rd party that handles billing will be a target focus for the invention. In this scenario, the invention can be used as an attachment to the front end and back end of the merchant of record.

The invention supports all languages and currencies.

Figure 5

	Price	Ship Method	Gift
#25020 BLK O/S Computer	\$285.00	<input type="text"/>	<input type="checkbox"/>
#25020 BLK O/S Dooney Gloves	\$205.00	<input type="text"/>	<input type="checkbox"/>
Merchandise Subtotal		\$570.00	
Gift boxing Total		\$0.00	
Ship Charge		\$14.95	
Sales Tax		\$35.10	
		\$620.05	


Are you claiming an exemption
 Yes ☐ No ☐
 If yes, what is your Sales Tax ID# _____ (required)

Figure 6a (if you are a regular consumer)

Item	Tax Status
Computer	Taxable
Dooney Gloves	Taxable

Figure 6b (if you are using an exemption reason)

Click on the tax status of each item

Click here (if all good(s) and/or service(s) are exempt under the same exempt code. Please choose the exemption here: 

Item	Taxable	Non Taxable	Exemption Claimed
Computer	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Drop Down Menu
Dooney Gloves	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Drop Down Menu

PA
 01 Sale for Resale
 02 Manufacturing
 03 R&D
 04 Charity
 05 Political



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UNITED STATES PATENT AND TRADEMARK OFFICE
WASHINGTON, D.C. 20231
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APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
60/218,196	07/14/2000		75	22529-66132f	4		

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Philadelphia, PA 19103-7595

FILING RECEIPT



OC000000005449933

Date Mailed: 10/04/2000

Receipt is acknowledged of this provisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the PTO processes the reply to the Notice, the PTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).**

Applicant(s)

Kevin C. Johnson, Villanova, PA ;
Brendan P. Johnson, Villanova, PA ;
John O. Ridley, Schwenksville, PA ;

Continuing Data as Claimed by Applicant

Foreign Applications

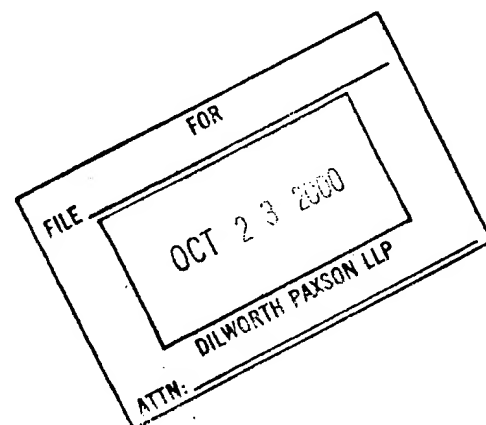
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** SMALL ENTITY **

Title

Adaptive system for applying sales taxes over the internet

Preliminary Class



Data entry by : THOMAS, DOROTHY

Team : OIPE

Date: 10/04/2000



**LICENSE FOR FOREIGN FILING UNDER
Title 35, United States Code, Section 184
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**STATEMENT CLAIMING SMALL ENTITY STATUS
(37 CFR §§ 1.9(f) and 1.27(b)) -- INDEPENDENT INVENTOR**

Applicant, Patentee or Identifier: Kevin C. Johnson, Brendan P. Johnson, John O. Ridley

Application Serial No. or Patent No.: Not yet assigned

Filed or Issued: Herewith

Title: ADAPTIVE SYSTEM FOR APPLYING SALES TAXES OVER THE INTERNET

As below-named inventor, I hereby state that I qualify as an independent inventor as defined in 37 C.F.R. § 1.9(c) for purposes of paying reduced fees to the U.S. Patent and Trademark Office described in:

- ☒ the specification filed herewith with title as listed above.
- ☐ the application identified above.
- ☐ the patent identified above.

I have not assigned, granted, conveyed, or licensed, and am under no obligation under contract or law to assign, grant, convey, or license, any rights in the invention to any person who would not qualify as an independent inventor under 37 C.F.R. § 1.9(c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 C.F.R. § 1.9(d) or a nonprofit organization under 37 C.F.R. § 1.9(e).

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Kevin C. Johnson
NAME OF INVENTOR

Brendan P. Johnson
NAME OF INVENTOR

John O. Ridley
NAME OF INVENTOR

SIGNATURE OF INVENTOR

SIGNATURE OF INVENTOR

SIGNATURE OF INVENTOR

DATE

DATE

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UNITED STATES PATENT AND TRADEMARK OFFICE

Docket No.: 22529-66132F

Serial No.: n/a

Applicants K. Johnson,

B. Johnson & J. Ridley

Attorney: JFL

The Patent Office acknowledges and has stamped hereon the date

UNITED STATES PATENT AND TRADEMARK OFFICE

Docket No.: 22529-66132F

Serial No.: n/a

Applicants K. Johnson,

B. Johnson & J. Ridley

Attorney: JFL

The Patent Office acknowledges and has stamped hereon the date
of receipt of the following items:

(1) Provisional Application; (2) Cover Sheet; (3) Check for filing
fee \$75.00; (4) 16 specification sheets; (5) 4 drawing sheets; and
(6) Small Entity Statement

et; (3) Check for filing
(5) 4 drawing sheets; and

965US

CERTIFICATE OF MAILING: July 14, 2000
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60/218196



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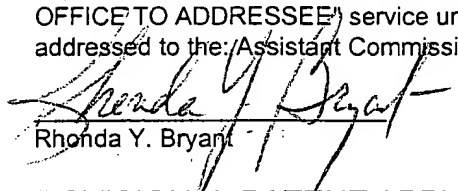
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: KEVIN C. JOHNSON, BRENDAN P. JOHNSON AND JOHN O. RIDLEY

For: ADAPTIVE SYSTEM FOR APPLYING SALES TAXES OVER THE INTERNET

CERTIFICATION UNDER 37 C.F.R. 1.10

I hereby certify that this correspondence and the documents referred to as attached therein are being deposited with the U.S. Postal Service on July 14, 2000, in an envelope as "EXPRESS MAIL POST OFFICE TO ADDRESSEE" service under 37 C.F.R. 1.10, Mailing Label Number EL485846965US addressed to the Assistant Commissioner for Patents, Washington, DC 20231.


Rhonda Y. Bryant

BOX PROVISIONAL PATENT APPLICATION
Assistant Commissioner for Patents
Washington DC 20231

**COVER SHEET FOR FILING PROVISIONAL APPLICATION
(37 CFR § 1.51(c)(1))****This is a request for filing a PROVISIONAL APPLICATION FOR PATENT.**

THE FOLLOWING COMPRISES THE INFORMATION REQUIRED.

NAMES AND RESIDENTIAL ADDRESSES OF THE INVENTOR(S):

- | | | | |
|----|---|-------------------------------|-----------------------------------|
| 1. | Kevin | C. | Johnson |
| | <small>GIVEN NAME</small> | <small>MIDDLE INITIAL</small> | <small>LAST (FAMILY) NAME</small> |
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| | <small>RESIDENTIAL ADDRESS</small> | <small>CITIZENSHIP</small> | |
| 2. | Brendan | P. | Johnson |
| | <small>GIVEN NAME</small> | <small>MIDDLE INITIAL</small> | <small>LAST (FAMILY) NAME</small> |
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| 2. | John | O. | Ridley |
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| | 9 Barley Sheaf Lane, Schwenksville, PA 19473 US | | |
| | <small>RESIDENTIAL ADDRESS</small> | <small>CITIZENSHIP</small> | |

**TITLE OF THE INVENTION: ADAPTIVE SYSTEM FOR APPLYING SALES TAXES
OVER THE INTERNET**

☐ A power of attorney accompanies this cover sheet.

This invention was made by an agency of the United States Government, or under contract with an agency of the United States government (37 CFR § 1.51(c)(1)(viii)).

☒ No.

☐ Yes. The name of the U.S. Government agency and the government contract number are: _____

IDENTIFICATION OF DOCUMENTS ACCOMPANYING THIS COVER SHEET:**Required:**

☒ Specification No. of Pages 16

☒ Drawings No. of Sheets 4

Additional documents:

☐ Claims No. of Claims

☐ Abstract

☒ Small Entity Statement

☐ Assignment

FEE:

The filing fee for this provision application is:

☐ Other than small entity \$150.00

☒ Applicant is a small entity \$ 75.00

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☒ check in the amount of \$75.00 is enclosed.

☐ Please charge Deposit Account No. 50-0979 in the amount of \$ _____. A duplicate of this Cover Sheet is attached.

Date: July 14, 2000



John F. Letchford
Registration No. 33,328

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Philadelphia, PA 19103-7595
Tel.: (215) 575-7000

ADAPTIVE SYSTEM FOR POINT OF SALE TAX ASSESSMENTFIELD OF THE INVENTION

The present invention relates in general to systems for sales tax assessment and, in particular, to an adaptive system for point of sale sales tax assessment based on bar code technology.

BACKGROUND OF THE INVENTION

Sales taxes are commonly applied by local, state and federal taxing authorities to myriad goods and services offered for sale in the United States. For example, forty-five states presently impose state sales tax on goods and services sold in those states. Local governments within those and other states may assess similar taxes, and the federal government may impose luxury or other sales taxes or levies on certain goods or services. Other countries or regions may impose similar taxes commonly known as value added taxes or VATs.

Barcode scanned point of sale transactions constitute the vast majority of automated wholesale and retail sales presently conducted in the United States and elsewhere. In a typical barcode transaction, an object bearing a barcode such as a Universal Product Code or UPC on its exterior or its packaging is scanned by a barcode reader to register the transaction. In the process of scanning, the barcode reader normally retrieves transactional information associated with the goods or services being purchased such as a description of the goods or services, the cost of the goods or services, the presently known tax status of the goods or services (e.g., taxable, non-taxable, tax-exempt) in the taxing

jurisdiction in which the goods or services are sold, and the presently known tax rate associated with the goods or services, if taxable, in the taxing jurisdiction in which the goods or services are sold. Records of these transactions may be stored locally or at a central location.

The wholesaler or retailer periodically forwards the sales taxes collected thereon to the appropriate state and/or local taxing authorities.

For companies operating in relatively localized markets, the task of maintaining the accuracy and integrity of its UPC-encoded tax information with reasonable timeliness may be quite manageable. However, for companies that sell hundreds or thousands of UPC-encoded products or services and conduct business nationally or globally in many taxing jurisdictions, maintaining current and reliable UPC-based tax assessment information may be daunting. Moreover, in the absence of up-to-date sales tax information, such companies may expose themselves to considerable tax liability for undertaxing or failing to tax its taxable goods and services. Conversely, if a company overtaxes its customers on taxable transactions or, alternatively, charges tax on non-taxable or tax-exempt transactions, the attendant inflated prices of its goods or services may deleteriously impact the company's ability to compete in the marketplace and, possibly, expose the company to legal liability.

Several automated systems are known that address point of sale sales tax issues such as monitoring, assessment and collection.

For example, U.S. Patent No. 5,644,724, 5,774,872, 5,799,283 and 5,875,433 disclose automatic sales tax collection and remittance systems.

U.S. Patent No. 5,924,077 describes an automated system for monitoring point of sale business information data

including whether sales tax is or is not charged at the point of sale.

U.S. Patent No. 5,335,169 provides an automated system whereby the system user may track multiple types of sales tax assessments for different taxing authorities.

And, U.S. Patent No. 5,819,249 discloses a system which is also adaptable to compute, inter alia, sales or use tax status for transactions in multiple taxing jurisdictions. The system employs an interactive question and answer type program whereby the user of the system is prompted by the program to respond to a series of inquiries whereby the nature of the user's responses determines the tax status of a transaction in a desired jurisdiction.

The present inventors are aware of no independent third party services which employ an adaptive system including a master point of sale tax assessment database compiled from the contents of a plurality of client databases, whereby the master database serves as a repository for the tax status and tax rate information for the clients' collective inventories of goods and services and against which any individual client's sales tax database may be quickly compared, modified and saved upon request. Hence, the present inventors believe that the systems described in the aforementioned U.S. patents would appear to rely on tax status databases compiled by personnel employed or contracted by the individual systems users from sundry sources such as state and local tax authorities and professional journals to create and maintain internal tax status databases unique to each user. To be even remotely reliable, the content of the databases cannot be static and must be periodically updated. However, the speed and frequency at which such updates are performed may be less than desirable. This is because considerable time and

research may be required for employee or contractor tax specialists, even if working in teams, to compile all of the latest product information and tax status and rate information that may be applicable to all of the many jurisdictions in which a company, especially a large company, may conduct business. It will be appreciated that prohibitive budgetary and time constraints would effectively prevent essentially real-time maintenance of such databases. Consequently, it is likely that, if placed into actual service, the systems disclosed in the patents frequently would perform their tax status monitoring functions in reliance upon outdated information which might expose the users of the systems to considerable economic harm and, possibly, tax or other legal liabilities.

An advantage exists, therefore, for an adaptive system including a master database in which tax assessment information from unlimited taxing jurisdictions may be stored, continuously updated and easily matched with virtually any barcode transactable point of sale product or service offered for sale by any wholesaler or retailer that is a participant in or client of the system. A further advantage exists for such a system wherein the system employs widely available technology, such as Universal Product Code or UPC technology, as the basis for identifying, monitoring and modifying tax status information relating to product and/or services listings in the master database and client databases. A unique advantage of using barcode technology such as UPC as a commodity identifier is that it minimizes the possibility of errors in matching the commodity to its tax status in any taxing jurisdiction. That is, each UPC barcode is uniquely associated with a particular product or service, and the same UPC barcode is used on or in connection with the particular product or

service regardless of the taxing jurisdiction in which the product or service is transacted.

An adaptive system founded on a master database which links barcode technology such as UPC to unlimited tax jurisdictions thus enables all point of sale wholesalers and retailers that interact with the system to contribute to and share in the development of the content of the master database. Since some merchants may sell some barcoded goods and/or services that another may not, each merchant contributes to the collective compilation of the master database. In addition, jurisdictional tax information is centrally compiled by the system and not the participants. As such, the participants are not hampered by having to continually employ or contract tax specialists to monitor changes in tax law in potentially large numbers of taxing jurisdictions. In addition to the obvious benefits of reduced cost and increased speed and reliability, the ability of the participants to access the shared information permits a participant to obtain product and/or service point of sale tax assessment information not only in taxing jurisdictions in which it presently does business but also in taxing jurisdictions in which it may wish to do business in the future.

SUMMARY OF THE INVENTION

The present invention provides an adaptive computerized system of assessing the taxability of goods or services sold at retail or wholesale. The system has the capability to conduct an analysis of all products and/or services sold by a retailer or wholesaler and provide the seller with the ability to monitor the tax status and tax rates of any goods or services sold by the seller at the point of sale in any number of taxing jurisdictions in near real time.

The system includes a master database which links barcode technology such as UPC to tax assessment information for point of sale goods and/or services transactions made by any number of wholesalers or retailers in potentially unlimited taxing jurisdictions. The system functions in a way that all wholesalers or retailers that utilize barcode technology in their point of sale transactions and that use the system contribute to the development of the content of the master database. Thus, the greater the number of participants in the system, the more comprehensive the content of the master database becomes, which inures to the benefit of all participants. Indeed, the master database of the adaptive system disclosed herein may be expected to support tax status information for hundreds of thousands or even millions of barcode transacted point of sale goods and services in unlimited local, state, federal and, optionally, foreign tax jurisdictions.

Each participant may also share in the master database information provided by other participants. In addition, jurisdictional tax information is centrally compiled by the system and not the participants. As such, the individual participants are not hampered by having to permanently or periodically employ or contract with tax professionals to monitor changes in tax law in potentially large numbers of taxing jurisdictions and independently bear the costs of such efforts. The ability of the participants to access the shared information also permits a participant to obtain product and/or service point of sale tax assessment information not only in taxing jurisdictions in which it presently does business but also in taxing jurisdictions in which it may wish to do business in the future.

At their discretion, participants may periodically access the system to update their own internal barcode-based

point of sale goods and services tax assessment databases by providing the system with the participants' current versions of their specific databases. In so doing, the master database can modify its own content and that of the participants' databases to reflect any additions of newly offered goods or services, discontinuations of goods or services no longer offered, and changes in tax status or tax rate of goods or services still being offered for sale.

Other details, objects and advantages of the present invention will become apparent as the following description of the presently preferred embodiments and presently preferred methods of practicing the invention proceeds.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention will become more readily apparent from the following description of preferred embodiments thereof shown, by way of example only, in the accompanying drawings, wherein:

FIG. 1 is a schematic view of a presently preferred process by which the master database of the adaptive system according to the invention is compiled and the master database and all archived client databases are maintained;

FIG. 2 is a schematic view of a presently preferred process by which a new client's point of sale UPC database is processed by the adaptive system according to the invention;

FIG. 3 is a schematic view of a presently preferred process by which an existing client's UPC database is updated and maintained by the adaptive system according to the invention; and

FIG. 4 is a simplified schematic view of a presently preferred process by which an existing client may seek information on new UPCs.

DETAILED DESCRIPTION OF THE INVENTION

The adaptive system of the present invention may reside on any dedicated or general purpose computer, work station or server having sufficient memory storage and processing speed capabilities to support any operating system and executing any computer language and software to efficiently carry out the essential functions prescribed herein. As such, the details of the adaptive system's hardware and software will not be described in detail since they are commercially available and do not, per se, form a part of the present invention. For example, although not limited thereto, the adaptive system may function as a user-interactive and, preferably, client-interactive network

based server and may reside on an IBM ® compatible or other personal computer capable of running software commercially available under the name Microsoft ® Office 2000 Professional produced by Microsoft Corp. of Redmond, WA. Under all circumstances, however, the adaptive system and its supporting hardware and software should be able to permit compilation, storage and modification of master and client databases including potentially vast numbers of barcode designations, a product or service description associated with each barcode designation, and tax assessment information associated with each barcode and its corresponding product or service (i.e., whether an item is taxable, non-taxable or tax-exempt and, if taxable, the appropriate tax rate therefor) in any taxing jurisdictions of potential interest to the adaptive system's owner, user or clients.

For simplicity of description and brevity of discussion, FIGS. 1 through 4 generally reference tax assessments based on state law and in connection with UPC-transacted goods or services. It will be understood, however, that the adaptive system according to the invention may also be programmed to compile and process information relating to goods or services transacted by other barcode technologies, as well as tax assessment information for any local, federal and/or foreign taxing jurisdictions.

Heretofore, point of sale tax status information has been compiled by tax specialist employees or contractors of a specific merchant. The information obtained was made available only to that merchant and related exclusively to its particular goods and/or services and encompassed only the tax jurisdictions within which it conducted business. A significant distinction and advantage of the tax status information gathering and processing functions performed by

the adaptive system of the present invention is that it enables two or more merchants to combine their respective barcode-based tax status databases to produce a collective master database whose expanded content may be utilized by and for the benefit of all of the participating merchants. In the past, the cost and time burdens of compiling and maintaining, in near real time, a comprehensive tax status database for individual merchants operating in multiple tax jurisdictions have been prohibitive.

In this light and referring to FIG. 1, there is shown in schematic form a presently preferred process or method by which a master database of the adaptive system according to the invention is compiled and the master database and all client databases are maintained. As previously mentioned, the adaptive system of the present invention comprises a master database, which is identified in the drawings by reference numeral 10. In amassing the content of master database 10, operators or users of the adaptive system compile barcode and related point of sale goods and/or services information from at least two merchants in addition to relevant tax assessment information encompassed in the master database for those goods and/or services. In the illustrated example, at step 12 the adaptive system may receive from the merchants or clients a plurality of UPCs and the associated goods/services descriptions for some or, more likely, all of the goods and/or services that may be offered for sale by two or more merchants. The merchants or clients may provide the requisite information by any suitable medium such as ASCII format, the World Wide Web (e.g., secure site, FTP, encrypted database, e-mail), disk (e.g., floppy, CD, zip), tape or cartridge, or by direct connection (e.g., perform the operation at the client location with a laptop computer).

Concurrently with and after receiving the UPC and goods/services descriptions from the clients, operators of the adaptive system conduct research to gather tax assessment information for the identified goods and services from numerous reliable sources including, without limitation, state tax statutes, regulations, case law and administrative rulings, as well as trade journals, periodicals, and other reliable print, broadcast and on-line sources. All of the gathered tax assessment information (including whether an item is taxable, non-taxable or tax-exempt and, if taxable, the appropriate tax rate therefor) is then correlated for each barcode and each good or service in each taxing jurisdiction and stored in master database 10.

At step 14, each specific client database is date-tagged and saved. At the moment of saving and date-tagging, the client's barcoded point of sale goods and/or services are automatically positioned into compliance with the prevailing tax laws of the taxing jurisdictions in which it does business. The purpose of date-tagging the clients' databases is that it establishes for each client a date upon which a client may rely in the event the client's point of sale tax records are later audited. Upon date-tagging and saving, the respective client files are archived at step 16, a copy of the client database is returned to the client at step 18 and the content of each client database becomes a subpart of the body of information which makes up master database 10.

Tax research conducted in support of the adaptive system is preferably an ongoing process. Accordingly, as tax assessment changes are discovered for any barcoded product or service in the master database 10 in any taxing jurisdiction included in the master database, those changes

are automatically entered into the master database and to all relevant client databases. The tax research may occasionally unearth certain point of sale goods or services whose tax status is uncertain in one or more taxing jurisdictions of interest to the client. In such "gray area" situations, the master database may be programmed to assign a "taxable", "non-taxable" or "tax-exempt" status and a tax rate to the item in question until the issue is clarified by the appropriate taxing authority. Such defaulting to a certain tax status allows individual clients to take conservative to liberal approaches to their point of sale tax assessment. A further advantage of continuous tax information gathering is that adaptive system of the present invention can monitor proposals of tax changes published in advance of the actual changes. In the event the anticipated change transpires, the master database 10 and the relevant client databases can be revised in near real time to reflect the change.

FIG. 2 depicts a situation wherein a new participant or client merchant's point of sale UPC database is processed by the adaptive system of the present invention. At step 20, the new client 20 delivers its UPCs and associated product/service descriptions to the adaptive system by any of the aforementioned media. At step 22 the master database 10 is invoked and a comparison between the contents of the client database and the master database is made to determine whether any of the client's UPCs match those stored in the master database 10. If one or more of the client's submitted UPCs do not match the master database, the nonmatching UPC or UPCs are researched at step 24 to determine their validity, accuracy and tax assessment characteristics in the taxing jurisdictions encompassed by the master database 10, and, if appropriate, are added to the master database 10.

If any of the new client's UPCs match those of the master database, then the state tax assessment information (or any other pertinent taxing jurisdiction's tax assessment information) of the product or service associated with the UPC or UPCs is checked at step 26 against current tax assessment information in the relevant taxing jurisdiction(s). If appropriate, the tax assessment information of the client's UPCs will be updated to reflect the proper tax status. Thereafter, the client's database is date-tagged at step 28, the client database is archived at step 30 and the client is provided a revised and saved version of its UPC database at step 32.

FIG. 3 represents a situation where an existing client of the adaptive system desires to update its UPC tax status database. If desired, the process illustrated in FIG. 3 may be used to update any portion or all of the existing client's database. It will be understood that the clients' archived databases and master database 10 are continually and automatically updated by virtue of ongoing changes in bar codes, product or service descriptions and/or tax assessment changes received by the system. At step 34 the client requests that the adaptive system perform the update. Upon receipt of the request, the adaptive system at step 36 invokes the client's archived database and, at step 38, the adaptive system compares the content of the client's present database with that of the client's archived database. If a UPC exists in both the present and archived client databases, the adaptive system determines at step 40 whether any conflicts exist between the present and archived versions of the client databases for that UPC in any taxing jurisdictions of interest to the client. If a conflict does exist, the adaptive system changes the tax assessment characteristics to the proper assessment values at step 42.

If comparison step 38 reveals a new UPC or UPCs not present in the client's archived database (step 44), the new UPC or UPCs are researched at step 46 to determine their validity, accuracy and tax assessment characteristics in the taxing jurisdictions encompassed by the master database 10, and, if appropriate, are added to the master database 10. If comparison step 38 reveals a UPC or UPCs that is present in the client's archived database but not in the client's present database submitted for comparison, the conflicting UPC entry or entries are noted as being discontinued from the client's database at step 48. The data output from steps 42, 46 and 48 is date-tagged at step 50, the updated client database is archived at step 52 and the client is provided with a revised and saved version of its UPC database at step 54.

FIG. 4 illustrates the manner in which a client 56 may subscribe to the adaptive system of the present invention through the Internet or other broadband network. As the need arises, client 56 may selectively update its client database. Similar to the way in which any Internet subscriber may enter any posted website, client 56 enters the website address of the operator of the adaptive system and receives a logon screen (not illustrated). The client enters a client number previously assigned to it by the adaptive system operator followed by an access number or password. After validation, a query screen appears in which the client enters the requested UPC. At step 58, the adaptive system records the UPC and compares it with a copy of the master database. If the UPC is found in the master database, a product or service description is returned by the adaptive system along with the current tax assessment characteristics for the product or service in the states or other taxing jurisdictions for which the client subscribes.

If the requested UPC is not found in the master database, an input screen appears and the UPC is preferably filled in automatically. The client then enters the product or service description and transmits the information from the completed input screen to the adaptive system. Each such UPC is then researched at step 60 to determine its validity, accuracy and tax assessment characteristics in the taxing jurisdictions encompassed by the master database, and, if appropriate, is added to the master database 10. At step 60, the adaptive system notifies the client of the results of the search by the client's method of choice.

Although the invention has been described in detail for in connection with UPC technology it is not limited to the use of UPCs for product identification. Other bar coding systems currently employed by retailers could also be stored within the invention's proprietary database. These coding systems include, but are not limited to, the International Standard Book Number (ISBN) system, the International Standard Serial Number (ISSN) system, the Global Service Relation Number (GSRN) system, the Universal Service Code (USC) system, and the European Article Numbering (EAN) system. All of these systems are found in wide use around the world for identifying specific products and services. While some products and services have multiple bar codes, others are solely coded based on one of the systems previously mentioned.

ISBNs, ISSNs, GSRNs, USCs, and EAN codes would be added to the master database in a manner similar to that of UPCs as described hereinabove. Publishers, retailers, and any other entities who use the invention and use these coding systems will first provided a listing of their products and services and the matching barcodes to the system administrator, so that they may be included in the master database. The system

administrator, having this information, will correlate the ISBN, ISSN, GSRN, USC, and EAN codes to the corresponding UPCs for each product. In this way, the use of the invention is not limited to those entities that employ a UPC bar coding system, but can be adapted to meet the needs of all entities with virtually no burden.

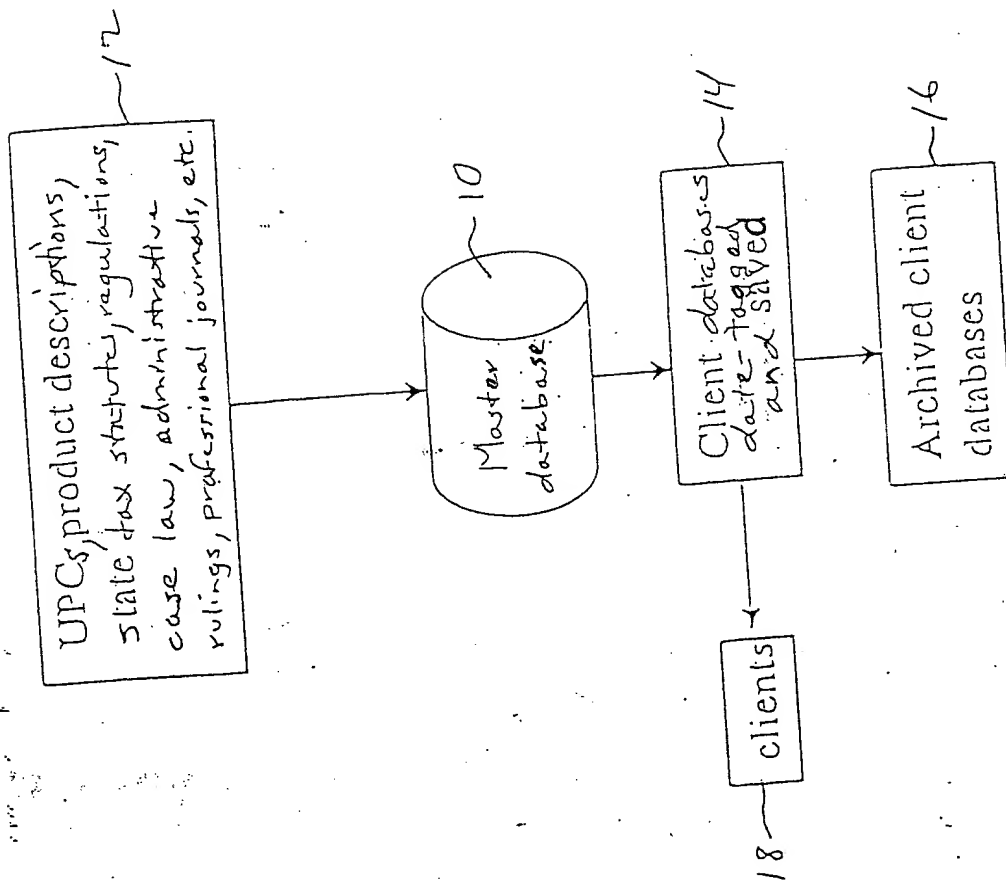


FIG. 1

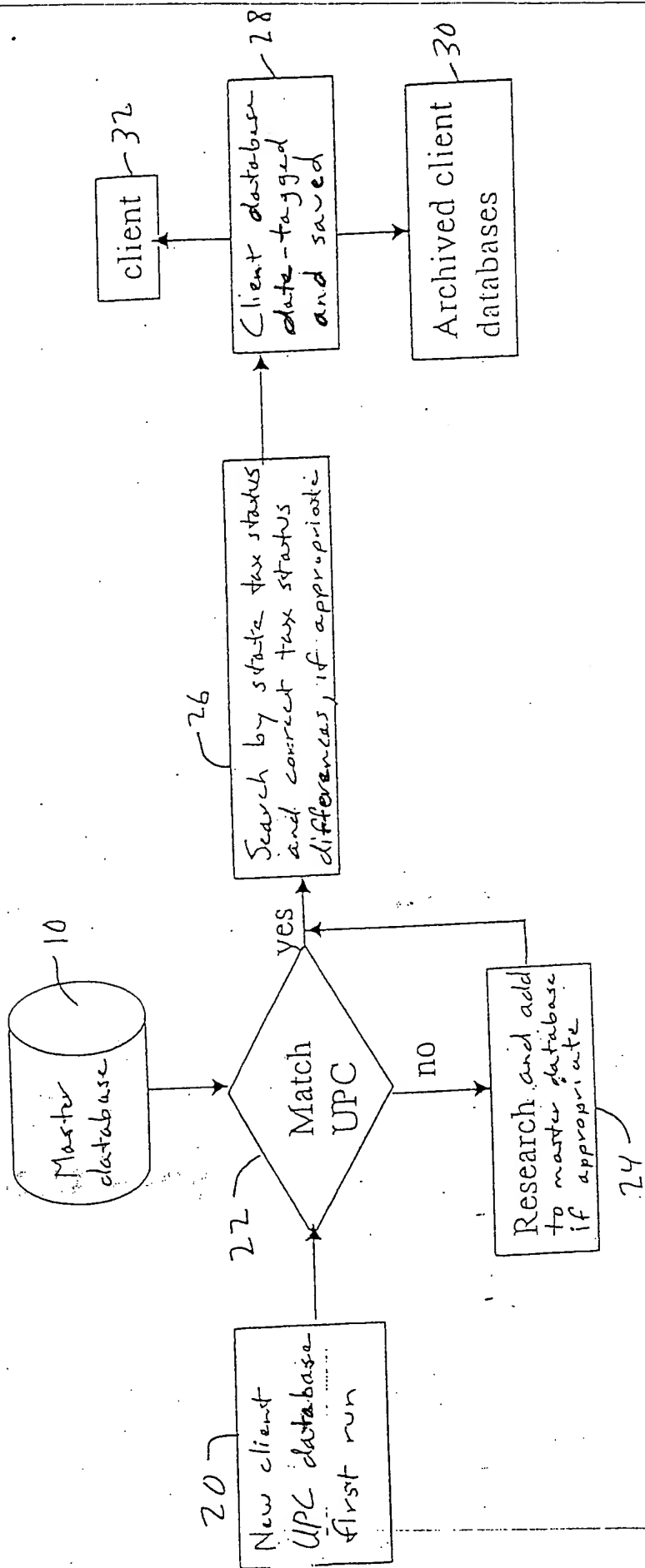


FIG. 2

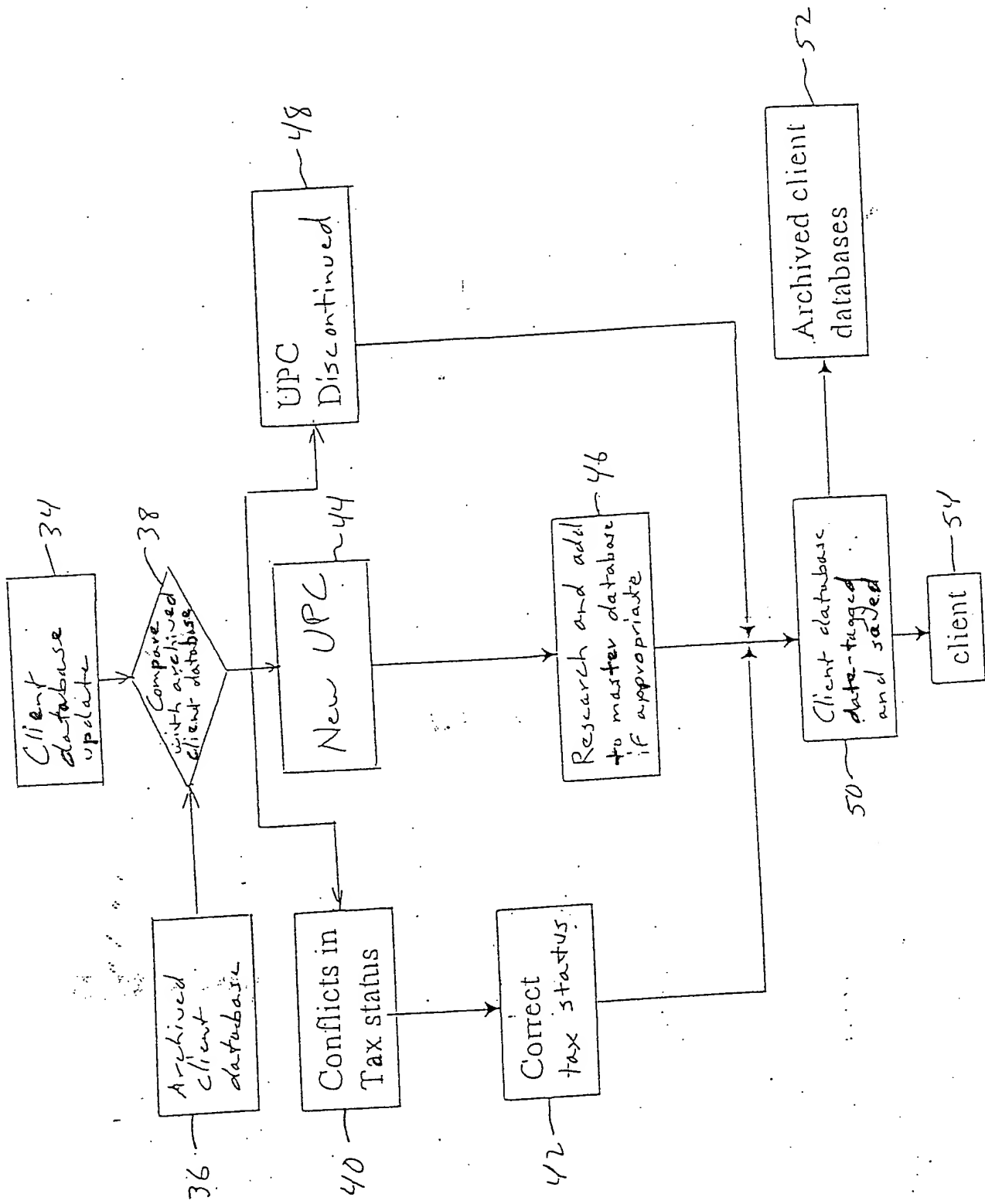


FIG. 3

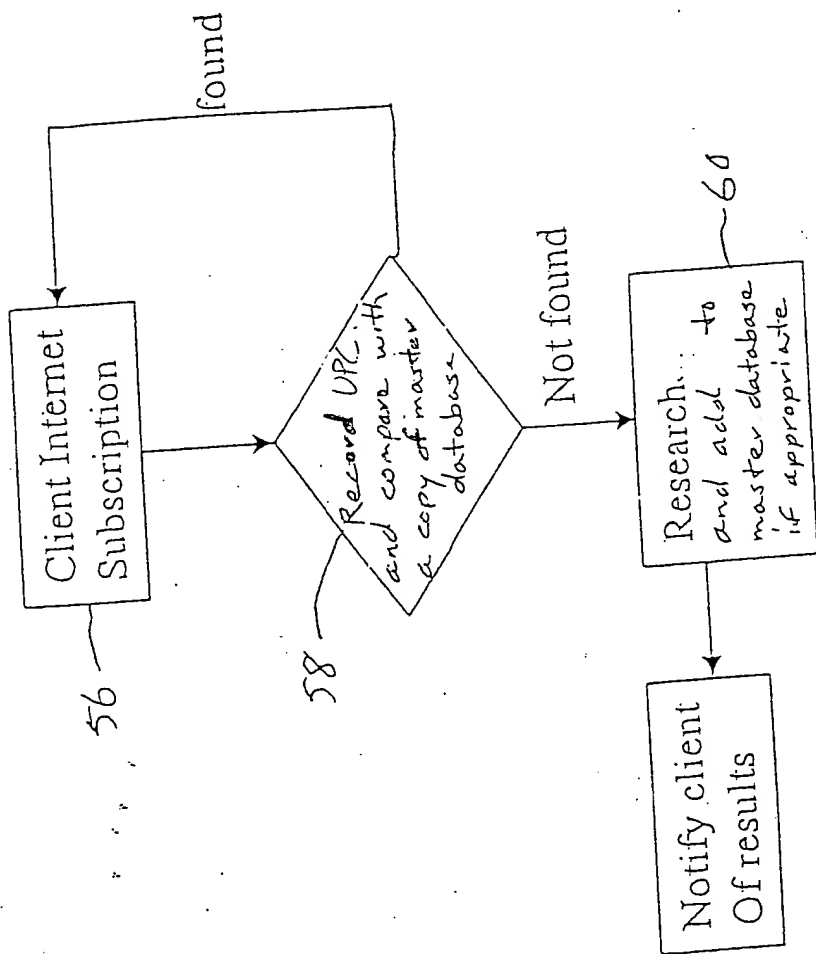


FIG. 4

Attorney Docket No: 22529-68132F

PROVISIONAL PATENT

STATEMENT CLAIMING SMALL ENTITY STATUS
(37 CFR §§ 1.9(f) and 1.27(b)) - INDEPENDENT INVENTOR

Applicant, Patentee or Identifier: Kevin C. Johnson, Brandon P. Johnson, John O. Ridley

Application Serial No. or Patent No.: Not yet assigned

Filed or Issued: Herewith:

Title: **ADAPTIVE SYSTEM FOR APPLYING SALES TAXES OVER THE INTERNET**

As below-named inventor, I hereby state that I qualify as an independent inventor as defined in 37 C.F.R. § 1.9(c) for purposes of paying reduced fees to the U.S. Patent and Trademark Office described in:

- ☒ the specification filed herewith with title as listed above.
☐ the application identified above.
☐ the patent identified above.

I have not assigned, granted, conveyed, or licensed, and am under no obligation under contract or law to assign, grant, convey, or license, any rights in the invention to any person who would not qualify as an independent inventor under 37 C.F.R. § 1.9(c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 C.F.R. § 1.9(d) or a nonprofit organization under 37 C.F.R. § 1.9(e).

Each person, concern, or organization having any rights in the invention is listed below:

☒ No such person, concern, or organization exists.

Separate statements are required from each named person, concern, or organization having rights to the invention stating their status as small entities. (37 CFR § 1.27).

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time or paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR § 1.28(b)).

Kevin C. Johnson

Brandon P. Johnson

John O. Ridley

NAME OF INVENTOR

NAME OF INVENTOR

NAME OF INVENTOR

SIGNATURE OF INVENTOR

SIGNATURE OF INVENTOR

SIGNATURE OF INVENTOR

DATE

DATE

DATE

FILING RECEIPT



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTORNEY DOCKET NO.	DRWGS	TOT CL	IND CL
09/451,009	11/29/99	2768	\$533.00	22529-66131	4	37	3

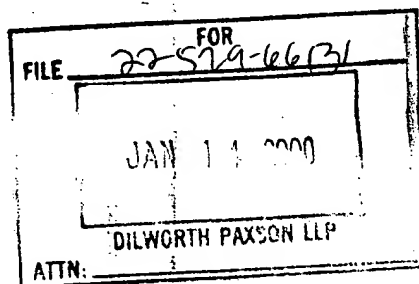
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PHILADELPHIA PA 19103-7595

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts of Application" ("Missing Parts Notice") in this application, please submit any corrections to this Filing Receipt with your reply to the "Missing Parts Notice." When the PTO processes the reply to the "Missing Parts Notice," the PTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s) JOHN O. RIDLEY, MIDDLETOWN, PA; KEVIN C. JOHNSON,
VILLANOVA, PA; BRENDAN P. JOHNSON, VILLANOVA, PA;
WILLIAM C. FELKER, NEW CUMBERLAND, PA.

IF REQUIRED, FOREIGN FILING LICENSE GRANTED 12/28/99 ** SMALL ENTITY **
TITLE
ADAPTIVE SYSTEM FOR POINT OF SALE TAX ASSESSMENT

PRELIMINARY CLASS: 705



DATA ENTRY BY: WHITE, JACKIE

TEAM: 03 DATE: 12/28/99



(See reverse for new important information)

22529-66131
ATTORNEY DOCKET NO. ~~22253-66003~~

PATENT

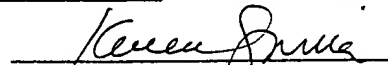
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of: John O. Ridley, Kevin C. Johnson, Brendan P. Johnson, and
William C. Felker

For: ADAPTIVE SYSTEM FOR POINT OF SALE TAX ASSESSMENT

CERTIFICATION UNDER 37 CFR § 1.10

I hereby certify that this correspondence and the documents referred to as attached therein are being deposited with the U.S. Postal Service on November 29, 1999, in an envelope as "EXPRESS MAIL POST OFFICE TO ADDRESSEE" service under 37 CFR § 1.10, Mailing Label Number EM582936718US, addressed to the: Assistant Commissioner for Patents, Washington, DC 20231.


Karen Spina

Box PATENT APPLICATION
Assistant Commissioner for Patents
Washington, DC 20231

PATENT APPLICATION TRANSMITTAL LETTER

Transmitted herewith for filing, please find the following:

Type of Application:

- ☒ Utility (non-provisional)
☐ Divisional
☐ Continuation
☐ Continuation-In-Part (CIP)

Incorporation by Reference:

- ☐ The entire disclosure of the prior application, **from which a copy of the Oath or Declaration is supplied**, is considered to be part of the disclosure of the accompanying application and is hereby incorporated by reference therein. (37 CFR § 1.63(d))

Benefit of Prior U.S. Application(s) Claimed (37 CFR § 1.78):

- ☐ PLEASE ENTER THE FOLLOWING AMENDMENT TO THE SPECIFICATION UNDER THE CROSS REFERENCE TO RELATED APPLICATIONS SECTION:

- ☐ This application claims the benefit of U.S. Provisional Application(s) No(s). 60/_____, filed on _____.
- ☐ This application is a ☐ continuation ☐ continuation-in-part ☐ divisional of copending U.S. Application Serial No(s). _____, filed on _____.
- ☐ International Application No. _____ filed on _____ and which designated the U.S.

Benefit of Prior Foreign Application(s):

- ☐ Priority is claimed under 35 U.S.C. § 119 of Application No. _____ filed on _____ in _____ [COUNTRY].

☐ A Certified Copy of each of the following application(s) for which priority is claimed:

COUNTRY	APPLICATION NO.	FILING DATE

☐ is enclosed.

☐ has been filed in prior Application Serial No. 0_ / _____, which was filed on _____.

Application Elements Enclosed:

☒ 15 Pages of Specification

☒ 6 Pages of Claims

☒ 4 Sheets of Drawings

☐ Formal

☒ Informal

☐ Petition to Accept Photographs (37 CFR § 1.84(b)).

☒ 1 Page(s) of Abstract of the Disclosure

Accompanying Application Parts:

☐ Associate Power of Attorney

☐ Preliminary Amendment

☐ Information Disclosure Statement

☐ Form PTO 1449 (PTO/SB/08A, 08B)

☐ Copies of Cited References

☐ Nucleotide and/or Amino Acid Sequence Submission (37 CFR §§ 1.821-1.825).

☐ Microfiche (Appendix) (37 CFR § 1.96(c)).

☒ Return Receipt Postcard (itemized)

Declaration or Oath and Power of Attorney:

☒ New (executed original or copy).

☐ New (unexecuted).

☐ Copy from prior application (37 CFR § 1.63(d))

Deletion of Inventor(s) (37 CFR § 1.63(d)(2), 1.33(b)):

☐ Signed Statement deleting inventor(s) named in the prior application is attached.

Assignment:

☐ An executed Assignment of the invention to:

Small Entity Statements:

☒ Statement(s) that this is a filing by a small entity under 37 §§ CFR 1.9 and 1.27 attached.

☐ Status as a small entity was claimed in prior U.S. Application Serial No. _____ filed on _____.

Status is still proper and desirable.

☐ A copy of the statement in prior application is enclosed.

The filing fee has been calculated as shown below:

	NO. FILED	NO. EXTRA	SMALL ENTITY			OTHER THAN SMALL ENTITY	
			RATE	FEE	OR	RATE	FEE
BASIC FEE				\$380	OR		\$
TOTAL CLAIMS	37 - 20 =	17	x 9 =	\$153	OR	x18 =	\$
INDEP. CLAIMS	3 - 3 =	0	x39 =	\$	OR	x78 =	\$
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM(S)			+130 =	\$	OR	+260 =	\$
		TOTAL		\$533	OR		\$

Method of Payment of Fees:

- ☐ No filing fee is to be paid at this time.
- ☐ Please charge my Deposit Account No. 50-0979 the amount of \$_____. This transmittal is attached in duplicate.
- ☒ The filing fee of \$533.00 is enclosed. Please charge any deficiency or credit any overpayment to Deposit Account No. 50-0979.

Authorization to Charge Additional Fees:

NOTE: if no fees are to be paid on filing, the following items should NOT be completed.

- ☒ The Commissioner is authorized to charge payment of the following fees and to refund any overpayment associated with this communication or during the pendency of this application to Deposit Account No. 50-0979. **This sheet is provided in duplicate.**
- ☐ Filing fees (37 CFR § 1.16(a), (f) or (g)).
- ☒ Presentation of extra claims (37 CFR § 1.16(b), (c) and (d)).
- ☐ Surcharge for filing the basic filing fee and/or declaration later than the filing date of the application (37 CFR § 1.16(e)).
- ☒ 37 CFR §§ 1.17(a)(1)-(5) (Extension fees pursuant to 37 CFR § 1.136(a)).
- ☐ Application processing fees (37 CFR § 1.17).
- ☐ 37 CFR § 1.18 (Issue Fee at or before mailing of Notice of Allowance pursuant to 37 CFR 1.311(b)).

Date: November 29, 1999


John F. Letenford
Registration No. 33,328

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1735 Market Street
Philadelphia, PA 19103-7595
(215) 575-7000

Attorney Docket No: 22529-66131

PATENT

**STATEMENT CLAIMING SMALL ENTITY STATUS
(37 CFR §§ 1.9(f) and 1.27(c)) -SMALL BUSINESS CONCERN**

Applicant, Patentee or Identifier: John O. Ridley, Kevin C. Johnson,
Brendan P. Johnson, and William C. Felker

Application Serial No. or Patent No.: _____

Filed or Issued: November 29, 1999

Title: ADAPTIVE SYSTEM FOR POINT OF SALE TAX ASSESSMENT

I hereby state that I am

☐ the owner of the small business concern identified below:

☒ an official of the small business concern empowered to act on
behalf of the concern identified below:

NAME OF SMALL BUSINESS CONCERN: Dryden Matrix Technologies LLC

ADDRESS OF SMALL BUSINESS CONCERN: 333 Spruce Street
Steelton, PA 17070

I hereby state that the above-identified small business concern qualifies as a small business concern as defined in 13 CFR. Part 121 for purposes of paying reduced fees to the United States Patent and Trademark Office, in that the number of employees of the concern, including those of its affiliates, does not exceed 500 persons. For purposes of this statement, (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on a full-time, part-time, or temporary basis during each of the pay periods of the fiscal year, and (2) concerns are affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both.

Attorney Docket No: 22529-66131

PATENT

I hereby state that rights under contract or law have been conveyed to and remain with the small business concern identified above with regard to the invention described in:

- ☒ the specification filed herewith with title as listed above.
- ☐ the application identified above.
- ☐ the patent identified above.

If the rights held by the above-identified small business concern are not exclusive, each individual, concern, or organization having rights in the invention must file separate statements as to their status as small entities, and no rights to the invention are held by any person, other than the inventor, who would not qualify as an independent inventor under 37 CFR 1.9(c) if that person made the invention, or by any concern which would not qualify as a small business concern under 37 CFR 1.9(d), or a nonprofit organization under 37 CFR 1.9(e).

Each person, concern, or organization having any rights in the invention is listed below:

- ☒ No such person, concern, or organization exists.

Separate statements are required from each named person, concern, or organization having rights to the invention stating their status as small entities. (37 CFR § 1.27).

Attorney Docket No: 22529-66131

PATENT

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time or paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR. § 1.28(b)).

NAME OF PERSON SIGNING: Brendan P. JohnsonTITLE OF PERSON IF OTHER THAN OWNER: Chief Financial OfficerADDRESS OF PERSON SIGNING: Dryden Matrix Technologies LLCADDRESS OF SMALL BUSINESS CONCERN: 333 Spruce Street
Steelton, PA 17070SIGNATURE: Brendan B. Johnson, CFO DATE: 11/29/99

UNITED STATES PATENT AND TRADEMARK OFFICE
Docket No.: 22529-66131 Applicant: Dryden Matrix
Serial No.: n/a Attorney: JFL

The Patent Office acknowledges and has stamped hereon
the date of receipt of the following items: (1) Application;
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(3) Executed Decl and Power of Attny (4) Small Entity Stmt
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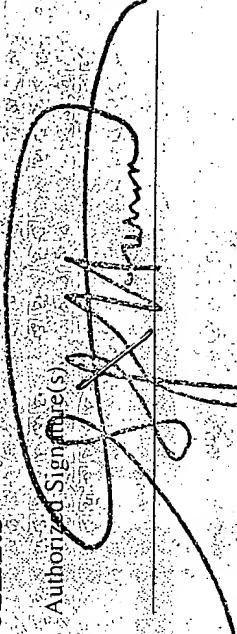
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ADAPTIVE SYSTEM FOR POINT OF SALE TAX ASSESSMENT**FIELD OF THE INVENTION**

5 The present invention relates in general to systems for sales tax assessment and, in particular, to an adaptive system for point of sale sales tax assessment based on bar code technology.

10 BACKGROUND OF THE INVENTION

 Sales taxes are commonly applied by local, state and federal taxing authorities to myriad goods and services offered for sale in the United States. For example, forty-
15 five states presently impose state sales tax on goods and services sold in those states. Local governments within those and other states may assess similar taxes, and the federal government may impose luxury or other sales taxes or levies on certain goods or services. Other countries or
20 regions may impose similar taxes commonly known as value added taxes or VATs.

Barcode scanned point of sale transactions constitute the vast majority of automated wholesale and retail sales presently conducted in the United States and elsewhere. In a typical barcode transaction, an object bearing a barcode
5 such as a Universal Product Code or UPC on its exterior or its packaging is scanned by a barcode reader to register the transaction. In the process of scanning, the barcode reader normally retrieves transactional information associated with the goods or services being purchased such as a description
10 of the goods or services, the cost of the goods or services, the presently known tax status of the goods or services (e.g., taxable, non-taxable, tax-exempt) in the taxing jurisdiction in which the goods or services are sold, and the presently known tax rate associated with the goods or
15 services, if taxable, in the taxing jurisdiction in which the goods or services are sold. Records of these transactions may be stored locally or at a central location.

The wholesaler or retailer periodically forwards the sales taxes collected thereon to the appropriate state and/or
20 local taxing authorities.

For companies operating in relatively localized markets, the task of maintaining the accuracy and integrity of its UPC- encoded tax information with reasonable timeliness may be quite manageable. However, for companies
25 that sell hundreds or thousands of UPC-encoded products or services and conduct business nationally or globally in many taxing jurisdictions, maintaining current and reliable UPC-based tax assessment information may be daunting. Moreover, in the absence of up-to-date sales tax information, such
30 companies may expose themselves to considerable tax liability for undertaxing or failing to tax its taxable goods and services. Conversely, if a company overtaxes its customers on taxable transactions or, alternatively, charges

tax on non-taxable or tax-exempt transactions, the attendant inflated prices of its goods or services may deleteriously impact the company's ability to compete in the marketplace and, possibly, expose the company to legal liability.

5 Several automated systems are known that address point of sale sales tax issues such as monitoring, assessment and collection.

For example, U.S. Patent No. 5,644,724, 5,774,872, 5,799,283 and 5,875,433 disclose automatic sales tax
10 collection and remittance systems.

U.S. Patent No. 5,924,077 describes an automated system for monitoring point of sale business information data including whether sales tax is or is not charged at the point of sale.

15 U.S. Patent No. 5,335,169 provides an automated system whereby the system user may track multiple types of sales tax assessments for different taxing authorities.

And, U.S. Patent No. 5,819,249 discloses a system which is also adaptable to compute, inter alia, sales or use tax
20 status for transactions in multiple taxing jurisdictions. The system employs an interactive question and answer type program whereby the user of the system is prompted by the program to respond to a series of inquiries whereby the nature of the user's responses determines the tax status of
25 a transaction in a desired jurisdiction.

The present inventors are aware of no independent third party services which employ an adaptive system including a master point of sale tax assessment database compiled from the contents of a plurality of client databases, whereby the
30 master database serves as a repository for the tax status and tax rate information for the clients' collective inventories of goods and services and against which any individual client's sales tax database may be quickly

compared, modified and saved upon request. Hence, the present inventors believe that the systems described in the aforementioned U.S. patents would appear to rely on tax status databases compiled by personnel employed or
5 contracted by the individual systems users from sundry sources such as state and local tax authorities and professional journals to create and maintain internal tax status databases unique to each user. To be even remotely reliable, the content of the databases cannot be static and
10 must be periodically updated. However, the speed and frequency at which such updates are performed may be less than desirable. This is because considerable time and research may be required for employee or contractor tax specialists, even if working in teams, to compile all of the
15 latest product information and tax status and rate information that may be applicable to all of the many jurisdictions in which a company, especially a large company, may conduct business. It will be appreciated that prohibitive budgetary and time constraints would effectively
20 prevent essentially real-time maintenance of such databases.

Consequently, it is likely that, if placed into actual service, the systems disclosed in the patents frequently would perform their tax status monitoring functions in reliance upon outdated information which might expose the
25 users of the systems to considerable economic harm and, possibly, tax or other legal liabilities.

An advantage exists, therefore, for an adaptive system including a master database in which tax assessment information from unlimited taxing jurisdictions may be
30 stored, continuously updated and easily matched with virtually any barcode transactable point of sale product or service offered for sale by any wholesaler or retailer that is a participant in or client of the system. A further

advantage exists for such a system wherein the system employs widely available technology, such as Universal Product Code or UPC technology, as the basis for identifying, monitoring and modifying tax status information relating to product and/or services listings in the master database and client databases. A unique advantage of using barcode technology such as UPC as a commodity identifier is that it minimizes the possibility of errors in matching the commodity to its tax status in any taxing jurisdiction. That is, each UPC barcode is uniquely associated with a particular product or service, and the same UPC barcode is used on or in connection with the particular product or service regardless of the taxing jurisdiction in which the product or service is transacted.

15 An adaptive system founded on a master database which links barcode technology such as UPC to unlimited tax jurisdictions thus enables all point of sale wholesalers and retailers that interact with the system to contribute to and share in the development of the content of the master database. Since some merchants may sell some barcoded goods and/or services that another may not, each merchant contributes to the collective compilation of the master database. In addition, jurisdictional tax information is centrally compiled by the system and not the participants. As such, the participants are not hampered by having to continually employ or contract tax specialists to monitor changes in tax law in potentially large numbers of taxing jurisdictions. In addition to the obvious benefits of reduced cost and increased speed and reliability, the ability of the participants to access the shared information permits a participant to obtain product and/or service point of sale tax assessment information not only in taxing jurisdictions in which it presently does business but also

in taxing jurisdictions in which it may wish to do business in the future.

SUMMARY OF THE INVENTION

5

The present invention provides an adaptive computerized system of assessing the taxability of goods or services sold at retail or wholesale. The system has the capability to conduct an analysis of all products and/or services sold by a retailer or wholesaler and provide the seller with the ability to monitor the tax status and tax rates of any goods or services sold by the seller at the point of sale in any number of taxing jurisdictions in near real time.

The system includes a master database which links barcode technology such as UPC to tax assessment information for point of sale goods and/or services transactions made by any number of wholesalers or retailers in potentially unlimited taxing jurisdictions. The system functions in a way that all wholesalers or retailers that utilize barcode technology in their point of sale transactions and that use the system contribute to the development of the content of the master database. Thus, the greater the number of participants in the system, the more comprehensive the content of the master database becomes, which inures to the benefit of all participants. Indeed, the master database of the adaptive system disclosed herein may be expected to support tax status information for hundreds of thousands or even millions of barcode transacted point of sale goods and services in unlimited local, state, federal and, optionally, foreign tax jurisdictions.

Each participant may also share in the master database information provided by other participants. In addition, jurisdictional tax information is centrally compiled by the system and not the participants. As such, the individual

participants are not hampered by having to permanently or periodically employ or contract with tax professionals to monitor changes in tax law in potentially large numbers of taxing jurisdictions and independently bear the costs of such efforts. The ability of the participants to access the shared information also permits a participant to obtain product and/or service point of sale tax assessment information not only in taxing jurisdictions in which it presently does business but also in taxing jurisdictions in which it may wish to do business in the future.

At their discretion, participants may periodically access the system to update their own internal barcode-based point of sale goods and services tax assessment databases by providing the system with the participants' current versions of their specific databases. In so doing, the master database can modify its own content and that of the participants' databases to reflect any additions of newly offered goods or services, discontinuations of goods or services no longer offered, and changes in tax status or tax rate of goods or services still being offered for sale.

Other details, objects and advantages of the present invention will become apparent as the following description of the presently preferred embodiments and presently preferred methods of practicing the invention proceeds.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention will become more readily apparent from the following description of preferred embodiments thereof shown, by way of example only, in the accompanying drawings, wherein:

FIG. 1 is a schematic view of a presently preferred process by which the master database of the adaptive system according to the invention is compiled and the master database and all archived client databases are maintained;

5

FIG. 2 is a schematic view of a presently preferred process by which a new client's point of sale UPC database is processed by the adaptive system according to the invention;

10

FIG. 3 is a schematic view of a presently preferred process by which an existing client's UPC database is updated and maintained by the adaptive system according to the invention; and

15

FIG. 4 is a simplified schematic view of a presently preferred process by which an existing client may seek information on new UPCs.

20 DETAILED DESCRIPTION OF THE INVENTION

The adaptive system of the present invention may reside on any dedicated or general purpose computer, work station or server having sufficient memory storage and processing speed capabilities to support any operating system and
25 executing any computer language and software to efficiently carry out the essential functions prescribed herein. As such, the details of the adaptive system's hardware and software will not be described in detail since they are
30 commercially available and do not, per se, form a part of the present invention. For example, although not limited thereto, the adaptive system may function as a user-interactive and, preferably, client-interactive network

based server and may reside on an IBM ® compatible or other personal computer capable of running software commercially available under the name Microsoft ® Office 2000 Professional produced by Microsoft Corp. of Redmond, WA.

- 5 Under all circumstances, however, the adaptive system and its supporting hardware and software should be able to permit compilation, storage and modification of master and client databases including potentially vast numbers of barcode designations, a product or service description
- 10 associated with each barcode designation, and tax assessment information associated with each barcode and its corresponding product or service (i.e., whether an item is taxable, non-taxable or tax-exempt and, if taxable, the appropriate tax rate therefor) in any taxing jurisdictions
- 15 of potential interest to the adaptive system's owner, user or clients.

For simplicity of description and brevity of discussion, FIGS. 1 through 4 generally reference tax assessments based on state law and in connection with UPC-

20 transacted goods or services. It will be understood, however, that the adaptive system according to the invention may also be programmed to compile and process information relating to goods or services transacted by other barcode technologies, as well as tax assessment information for any

25 local, federal and/or foreign taxing jurisdictions.

Heretofore, point of sale tax status information has been compiled by tax specialist employees or contractors of a specific merchant. The information obtained was made available only to that merchant and related exclusively to

30 its particular goods and/or services and encompassed only the tax jurisdictions within which it conducted business. A significant distinction and advantage of the tax status information gathering and processing functions performed by

the adaptive system of the present invention is that it enables two or more merchants to combine their respective barcode-based tax status databases to produce a collective master database whose expanded content may be utilized by
5 and for the benefit of all of the participating merchants. In the past, the cost and time burdens of compiling and maintaining, in near real time, a comprehensive tax status database for individual merchants operating in multiple tax jurisdictions have been prohibitive.

10 In this light and referring to FIG. 1, there is shown in schematic form a presently preferred process or method by which a master database of the adaptive system according to the invention is compiled and the master database and all client databases are maintained. As previously mentioned,
15 the adaptive system of the present invention comprises a master database, which is identified in the drawings by reference numeral 10. In amassing the content of master database 10, operators or users of the adaptive system compile barcode and related point of sale goods and/or
20 services information from at least two merchants in addition to relevant tax assessment information encompassed in the master database for those goods and/or services. In the illustrated example, at step 12 the adaptive system may receive from the merchants or clients a plurality of UPCs
25 and the associated goods/services descriptions for some or, more likely, all of the goods and/or services that may be offered for sale by two or more merchants. The merchants or clients may provide the requisite information by any suitable medium such as ASCII format, the World Wide Web
30 (e.g., secure site, FTP, encrypted database, e-mail), disk (e.g., floppy, CD, zip), tape or cartridge, or by direct connection (e.g., perform the operation at the client location with a laptop computer).

Concurrently with and after receiving the UPC and goods/services descriptions from the clients, operators of the adaptive system conduct research to gather tax assessment information for the identified goods and services from numerous reliable sources including, without limitation, state tax statutes, regulations, case law and administrative rulings, as well as trade journals, periodicals, and other reliable print, broadcast and on-line sources. All of the gathered tax assessment information (including whether an item is taxable, non-taxable or tax-exempt and, if taxable, the appropriate tax rate therefor) is then correlated for each barcode and each good or service in each taxing jurisdiction and stored in master database 10.

At step 14, each specific client database is date-tagged and saved. At the moment of saving and date-tagging, the client's barcoded point of sale goods and/or services are automatically positioned into compliance with the prevailing tax laws of the taxing jurisdictions in which it does business. The purpose of date-tagging the clients' databases is that it establishes for each client a date upon which a client may rely in the event the client's point of sale tax records are later audited. Upon date-tagging and saving, the respective client files are archived at step 16, a copy of the client database is returned to the client at step 18 and the content of each client database becomes a subpart of the body of information which makes up master database 10.

Tax research conducted in support of the adaptive system is preferably an ongoing process. Accordingly, as tax assessment changes are discovered for any barcoded product or service in the master database 10 in any taxing jurisdiction included in the master database, those changes

are automatically entered into the master database and to all relevant client databases. The tax research may occasionally unearth certain point of sale goods or services whose tax status is uncertain in one or more taxing jurisdictions of interest to the client. In such "gray area" situations, the master database may be programmed to assign a "taxable", "non-taxable" or "tax-exempt" status and a tax rate to the item in question until the issue is clarified by the appropriate taxing authority. Such defaulting to a certain tax status allows individual clients to take conservative to liberal approaches to their point of sale tax assessment. A further advantage of continuous tax information gathering is that adaptive system of the present invention can monitor proposals of tax changes published in advance of the actual changes. In the event the anticipated change transpires, the master database 10 and the relevant client databases can be revised in near real time to reflect the change.

FIG. 2 depicts a situation wherein a new participant or client merchant's point of sale UPC database is processed by the adaptive system of the present invention. At step 20, the new client 20 delivers its UPCs and associated product/service descriptions to the adaptive system by any of the aforementioned media. At step 22 the master database 10 is invoked and a comparison between the contents of the client database and the master database is made to determine whether any of the client's UPCs match those stored in the master database 10. If one or more of the client's submitted UPCs do not match the master database, the nonmatching UPC or UPCs are researched at step 24 to determine their validity, accuracy and tax assessment characteristics in the taxing jurisdictions encompassed by the master database 10, and, if appropriate, are added to the master database 10.

If any of the new client's UPCs match those of the master database, then the state tax assessment information (or any other pertinent taxing jurisdiction's tax assessment information) of the product or service associated with the UPC or UPCs is checked at step 26 against current tax assessment information in the relevant taxing jurisdiction(s). If appropriate, the tax assessment information of the client's UPCs will be updated to reflect the proper tax status. Thereafter, the client's database is date-tagged at step 28, the client database is archived at step 30 and the client is provided a revised and saved version of its UPC database at step 32.

FIG. 3 represents a situation where an existing client of the adaptive system desires to update its UPC tax status database. If desired, the process illustrated in FIG. 3 may be used to update any portion or all of the existing client's database. It will be understood that the clients' archived databases and master database 10 are continually and automatically updated by virtue of ongoing changes in bar codes, product or service descriptions and/or tax assessment changes received by the system. At step 34 the client requests that the adaptive system perform the update. Upon receipt of the request, the adaptive system at step 36 invokes the client's archived database and, at step 38, the adaptive system compares the content of the client's present database with that of the client's archived database. If a UPC exists in both the present and archived client databases, the adaptive system determines at step 40 whether any conflicts exist between the present and archived versions of the client databases for that UPC in any taxing jurisdictions of interest to the client. If a conflict does exist, the adaptive system changes the tax assessment characteristics to the proper assessment values at step 42.

If comparison step 38 reveals a new UPC or UPCs not present in the client's archived database (step 44), the new UPC or UPCs are researched at step 46 to determine their validity, accuracy and tax assessment characteristics in the taxing jurisdictions encompassed by the master database 10, and, if appropriate, are added to the master database 10. If comparison step 38 reveals a UPC or UPCs that is present in the client's archived database but not in the client's present database submitted for comparison, the conflicting UPC entry or entries are noted as being discontinued from the client's database at step 48. The data output from steps 42, 46 and 48 is date-tagged at step 50, the updated client database is archived at step 52 and the client is provided with a revised and saved version of its UPC database at step 54.

FIG. 4 illustrates the manner in which a client 56 may subscribe to the adaptive system of the present invention through the Internet or other broadband network. As the need arises, client 56 may selectively update its client database. Similar to the way in which any Internet subscriber may enter any posted website, client 56 enters the website address of the operator of the adaptive system and receives a logon screen (not illustrated). The client enters a client number previously assigned to it by the adaptive system operator followed by an access number or password. After validation, a query screen appears in which the client enters the requested UPC. At step 58, the adaptive system records the UPC and compares it with a copy of the master database. If the UPC is found in the master database, a product or service description is returned by the adaptive system along with the current tax assessment characteristics for the product or service in the states or other taxing jurisdictions for which the client subscribes.

If the requested UPC is not found in the master database, an input screen appears and the UPC is preferably filled in automatically. The client then enters the product or service description and transmits the information from the completed
5 input screen to the adaptive system. Each such UPC is then researched at step 60 to determine its validity, accuracy and tax assessment characteristics in the taxing jurisdictions encompassed by the master database, and, if appropriate, is added to the master database 10. At step 60,
10 the adaptive system notifies the client of the results of the search by the client's method of choice.

Although the invention has been described in detail for the purpose of illustration, it is to be understood that such detail is solely for the purpose and that variations can be
15 made therein by those skilled in the art without departing from the spirit and scope of the invention except as it may be limited by the claims.

20

25

CLAIMS

What is claimed is:

- 5 1. A method of compiling a tax assessment database for point of sale goods or services transacted via barcode technology, said method comprising the steps of:
- gathering barcode information and goods or services description information corresponding to said barcode
- 10 information from a plurality of clients;
- gathering tax assessment information for each of said goods or services for desired taxing jurisdictions;
- correlating said barcode information and said goods or
- 15 services description information with said tax assessment information; and
- storing said barcode information, said goods or services description information and said tax assessment information in a master database.
- 20
2. The method of claim 1 wherein said barcode information is the Universal Product Code.
3. The method of claim 1 wherein said tax assessment
- 25 information comprises an indication of whether a good or a service is taxable, non-taxable or tax-exempt.
4. The method of claim 3 wherein, if a good or service is indicated as being taxable, said tax assessment information
- 30 further includes a tax rate associated with the good or service.

5. The method of claim 1 wherein said taxing jurisdictions comprise local taxing jurisdictions.

6. The method of claim 1 wherein said taxing jurisdictions
5 comprise state taxing jurisdictions.

7. The method of claim 1 wherein said taxing jurisdictions comprise federal taxing jurisdictions.

10 8. The method of claim 1 wherein said taxing jurisdictions comprise foreign taxing jurisdictions.

9. The method of claim 1 further comprising the steps of
comparing a new client database with said master database,
15 and modifying said master database to include information
from said new client database.

10. The method of claim 1 further comprising the steps of
comparing a new client database with said master database,
20 and modifying said new client database to include
information from said master database.

11. The method of claim 10 further comprising date-tagging
said new client database.

25 12. The method of claim 11 further comprising providing a
new client with said date-tagged new client database.

13. The method of claim 10 further comprising providing a
30 new client with said modified new client database.

14. The method of claim 10 further comprising archiving
said new client database.

15. A method of maintaining a client tax assessment database for point of sale goods or services transacted via barcode technology, said method comprising the steps of:

- 5 gathering barcode information and goods or services description information corresponding to said barcode information from a plurality of clients;
- gathering tax assessment information for each of said goods or services for desired taxing jurisdictions;
- 10 correlating said barcode information and said goods or services description information with said tax assessment information;
- storing said barcode information, said goods or services description information and said tax assessment
- 15 information in a master database;
- comparing said client database with an archived client database; and
- modifying said client database to include updated tax assessment information from said master database.

20

16. The method of claim 15 wherein said barcode information is the Universal Product Code.

25

17. The method of claim 15 wherein said tax assessment information comprises an indication of whether a good or a service is taxable, non-taxable or tax-exempt.

30

18. The method of claim 17 wherein, if a good or service is indicated as being taxable, said tax assessment information further includes a tax rate associated with the good or service.

19. The method of claim 15 further comprising date-tagging said client database.

20. The method of claim 19 further comprising providing a client with said date-tagged client database.

21. The method of claim 15 further comprising providing a client with said modified client database.

22. The method of claim 15 further comprising archiving said client database.

23. The method of claim 15 further comprising modifying said master database to include barcode information and goods or services information from said client database.

24. The method of claim 15 wherein said taxing jurisdictions comprise local taxing jurisdictions.

25. The method of claim 15 wherein said taxing jurisdictions comprise state taxing jurisdictions.

26. The method of claim 15 wherein said taxing jurisdictions comprise federal taxing jurisdictions.

27. The method of claim 15 wherein said taxing jurisdictions comprise foreign taxing jurisdictions.

28. A method of maintaining a client tax assessment database for point of sale goods or services transacted via barcode technology, said method comprising the steps of:

gathering barcode information and goods or services
5 description information corresponding to said barcode information from a plurality of clients;

gathering tax assessment information for each of said goods or services for desired taxing jurisdictions;

correlating said barcode information and said goods or
10 services description information with said tax assessment information;

storing said barcode information, said goods or services description information and said tax assessment information in a master database;

15 accessing said master database by a client, said client inquiring as to the tax assessment characteristics of at least one item of barcode information;

comparing said at least one item of barcode information with said master database; and

20 modifying said client database to include updated tax assessment information from said master database for said at least one item of barcode information for at least one taxing jurisdiction of interest to said client.

25 29. The method of claim 28 wherein said barcode information is the Universal Product Code.

30 30. The method of claim 28 wherein said tax assessment information comprises an indication of whether a good or a service is taxable, non-taxable or tax-exempt.

31. The method of claim 30 wherein, if a good or service is indicated as being taxable, said tax assessment information further includes a tax rate associated with the good or service.

5

32. The method of claim 28 wherein said step of accessing said master database is performed via a broadband network.

10 33. The method of claim 32 wherein said broadband network is the Internet.

34. The method of claim 28 wherein said taxing jurisdictions comprise local taxing jurisdictions.

15 35. The method of claim 28 wherein said taxing jurisdictions comprise state taxing jurisdictions.

36. The method of claim 28 wherein said taxing jurisdictions comprise federal taxing jurisdictions.

20

37. The method of claim 28 wherein said taxing jurisdictions comprise foreign taxing jurisdictions.

ABSTRACT OF THE DISCLOSURE

An adaptive computerized system of assessing the taxability of goods or services sold at retail or wholesale.

- 5 The system has the capability to conduct an analysis of all products and/or services sold by a retailer or wholesaler and provide the seller with the ability to monitor the tax status and tax rates of any goods or services sold by the seller at the point of sale in any number of taxing
- 10 jurisdictions in near real time. The system includes a master database which links barcode technology such as UPC to tax assessment information for point of sale goods and/or services transactions made by any number of merchants in potentially unlimited taxing jurisdictions. The master
- 15 database can modify its own content and that of the merchants' databases to reflect any additions of newly offered goods or services, deletions of goods or services no longer offered, and changes in tax status or tax rate of goods or services still being offered for sale.

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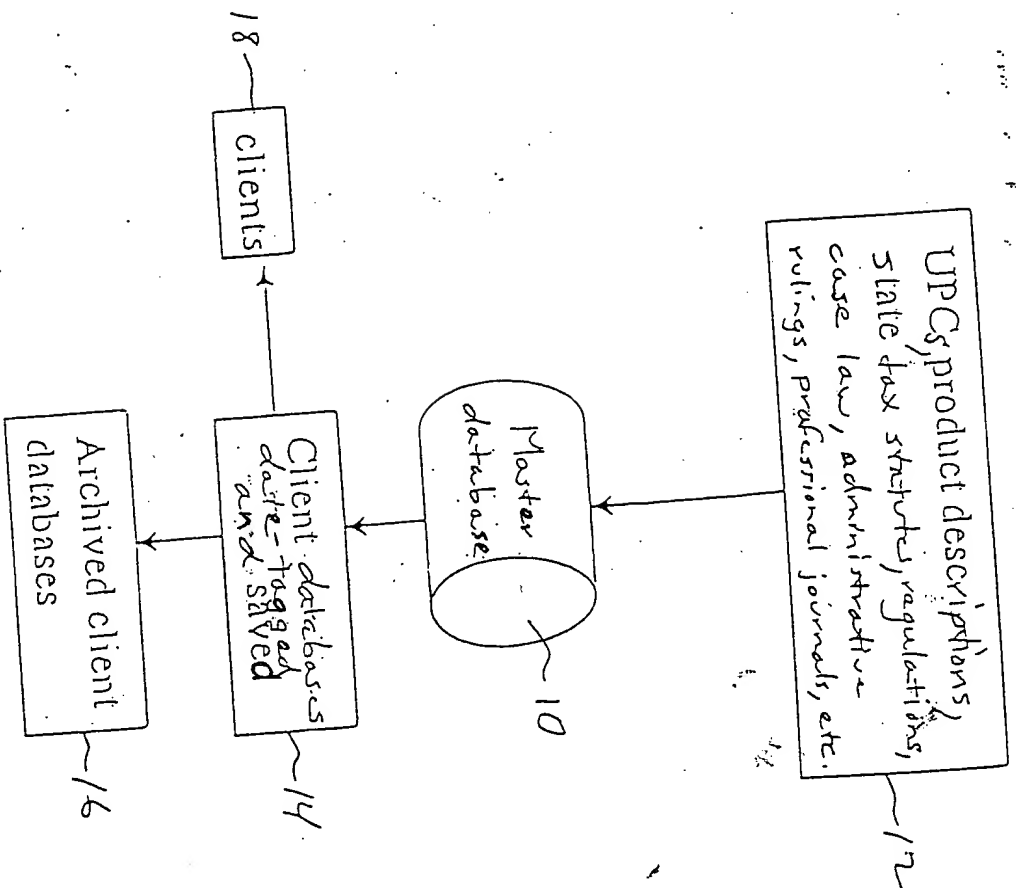


FIG. 1

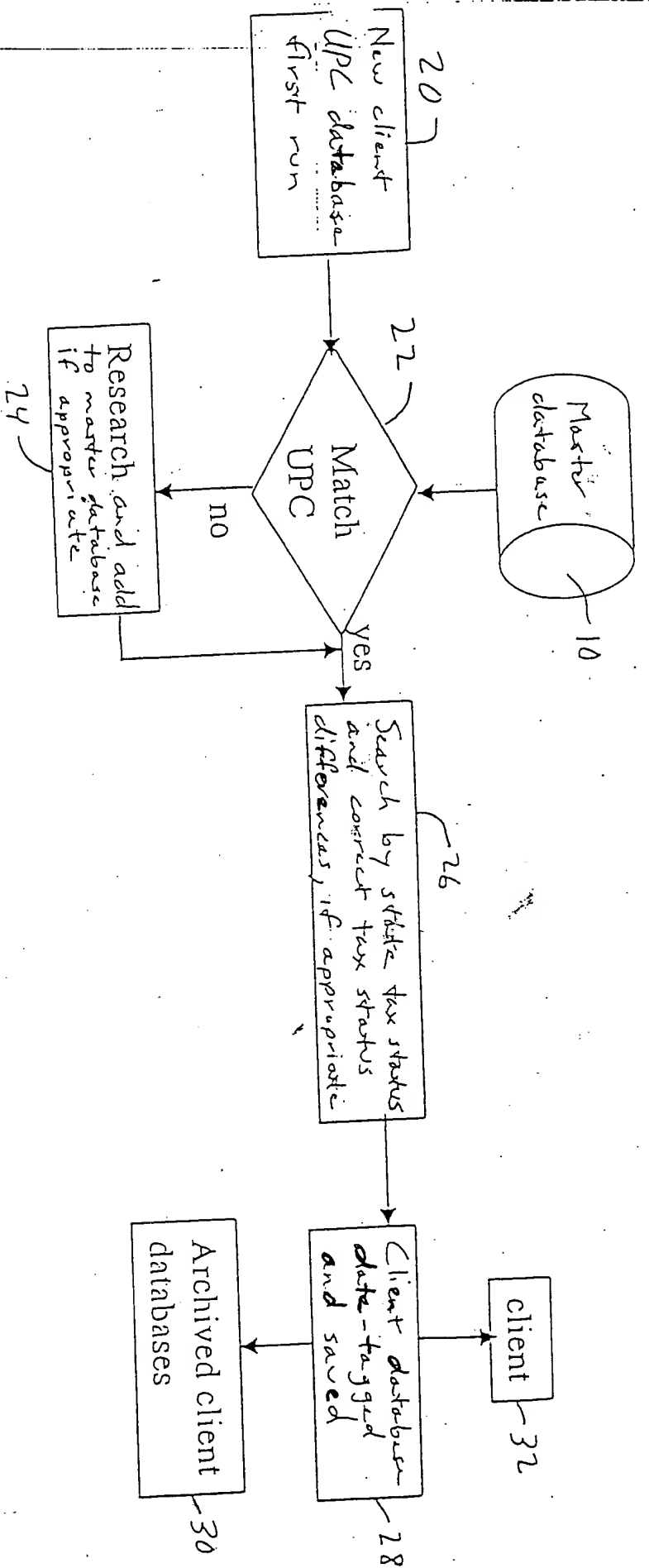
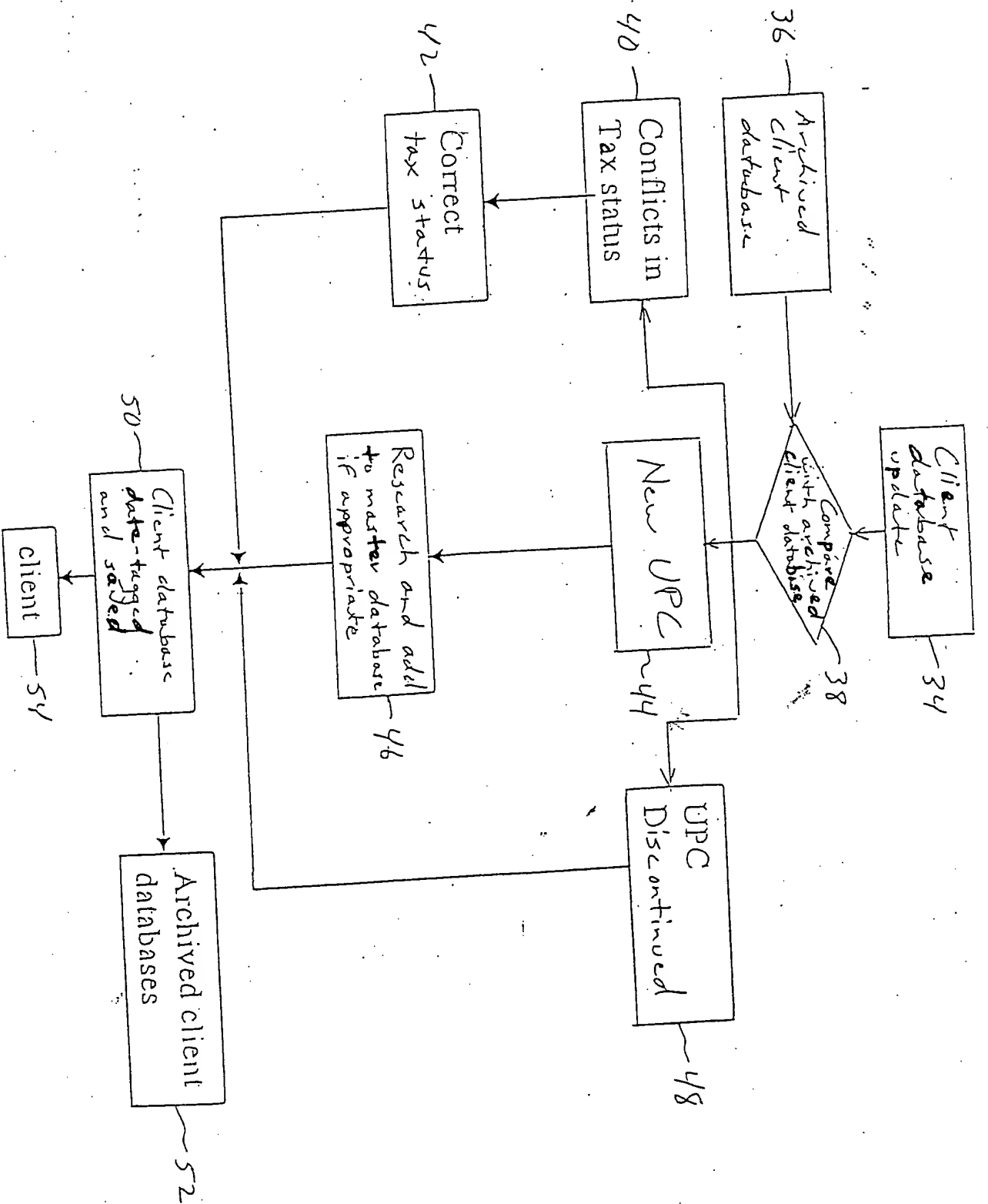


FIG. 2



F16.3

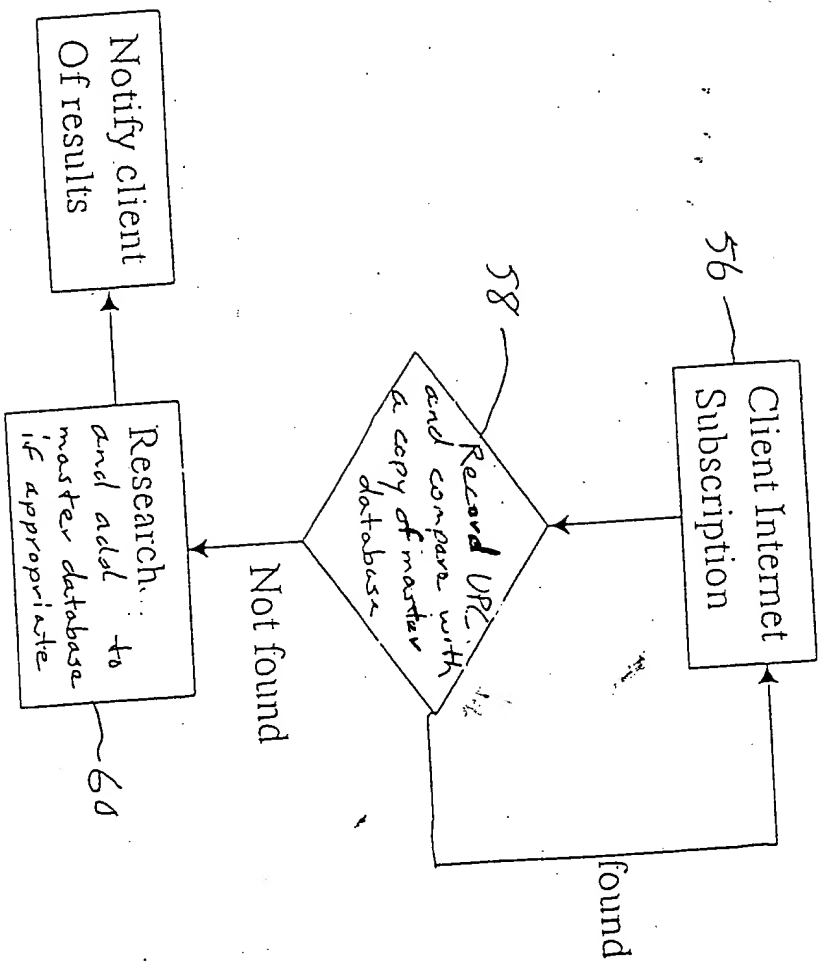


FIG. 4

COMBINED DECLARATION AND POWER OF ATTORNEY

(ORIGINAL, DESIGN, NATIONAL STAGE OF PCT, SUPPLEMENTAL, DIVISIONAL;
CONTINUATION, OR C-I-P)

As a below-named inventor, I hereby declare that:

TYPE OF DECLARATION

This declaration is of the following type:

- ☒ original
- ☐ design
- ☐ supplemental
- ☐ national stage of PCT
- ☐ divisional
- ☐ continuation
- ☐ continuation-in-part (C-I-P).

INVENTORSHIP IDENTIFICATION

My residence, post office address and citizenship are as stated below next to my name. I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: **ADAPTIVE SYSTEM FOR POINT OF SALE TAX ASSESSMENT** the specification of which:

- (a) ☒ is attached hereto **OR**
- (b) ☐ was filed on _____ as United States Application Serial Number / _____ and was amended on _____ (if applicable)
- (c) ☐ was described and claimed in PCT International Application Number _____, filed on _____ and as amended under PCT Article 19 on _____ (if any).

SUPPLEMENTAL DECLARATION (37 C.F.R. § 1.67(b))

- ☐ I hereby declare that the subject matter of the
- ☐ attached amendment
- ☐ amendment filed on _____

was part of my/our invention and was invented before the filing date of the original application, above-identified, for such invention.

ACKNOWLEDGEMENT OF REVIEW OF PAPERS AND DUTY OF CANDOR

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to the patentability of this application in accordance with 37 CFR § 1.56,

- ☒ and which is material to the examination of this application, namely, information where there is a substantial likelihood that a reasonable Examiner would consider it important in deciding whether to allow the application to issue as a patent, and

- ☐ in compliance with this duty, there is attached an Information Disclosure Statement, in accordance with 37 C.F.R. § 1.98.

PRIORITY CLAIM (35 U.S.C. §§ 119(a)-(d))

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a-d) of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) on which priority is claimed.

(complete (d) or (e))

- ☒ no such application(s) have been filed.
- ☐ such applications have been filed as follows:

**PRIOR FOREIGN/PCT APPLICATION(S) FILED WITHIN 12 MONTHS
(6 MONTHS FOR DESIGN) PRIOR TO THIS APPLICATION
AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. § 119(a)-(d)**

COUNTRY (or indicate if PCT)	APPLICATION NUMBER	DATE OF FILING (day/month/year)	PRIORITY CLAIMED UNDER 37 USC 119	CERTIFIED COPY ATTACHED?
			<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO

CLAIM FOR BENEFIT OF PRIOR U.S. PROVISIONAL APPLICATION(S)

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States *provisional* application(s) listed below.

Application Numbers	Filing Date (month/day/year)

**CLAIM FOR BENEFIT OF EARLIER US/PCT APPLICATION(S)
UNDER 35 U.S.C. § 120**

- ☐ The claim for the benefit of any such applications are set forth in the attached ADDED PAGES TO COMBINED DECLARATION AND POWER OF ATTORNEY FOR DIVISIONAL, CONTINUATION OR CONTINUATION-IN-PART (C-I-P) APPLICATION.

**ALL FOREIGN APPLICATION(S), IF ANY, FILED MORE THAN 12 MONTHS
(6 MONTHS FOR DESIGN) PRIOR TO THIS U.S. APPLICATION**

COUNTRY (or indicate if PCT)	APPLICATION NUMBER	DATE OF FILING (day/MONTH/year)	PRIORITY CLAIMED?

POWER OF ATTORNEY

I hereby appoint the following practitioner(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith:

John F. Letchford
Evelyn H. McConathy
Michael B. Fein

Reg. No. 33,328
Reg. No. 35,297
Reg. No. 25,333

- [] I hereby appoint the practitioner(s) associated with Customer Number _____ to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith.
- [] Attached, as part of this Declaration and Power of Attorney, is the authorization of the above-named practitioner(s) to accept and follow instructions from my representative(s).

Direct all telephone calls and correspondence to:

John F. Letchford, Esquire
DILWORTH PAXSON LLP
3200 Mellon Bank Center
1735 Market Street
Philadelphia, PA 19103-7595

Telephone: (215) 575-7000
Facsimile: (215) 575-7200

DECLARATION

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

SIGNATURE(S)

1. FULL NAME OF SOLE OR FIRST INVENTOR

John O. Ridley
(GIVEN NAME) (MIDDLE INITIAL OR NAME) FAMILY (OR LAST NAME)
INVENTOR'S SIGNATURE John O. Ridley
DATE _____ COUNTRY OF CITIZENSHIP USA
RESIDENCE 981 Timber Lane Middletown, PA 17057
POST OFFICE ADDRESS SAME

2. FULL NAME OF SECOND JOINT INVENTOR (IF ANY)

Kevin C. Johnson
(GIVEN NAME) (MIDDLE INITIAL OR NAME) FAMILY (OR LAST NAME)
INVENTOR'S SIGNATURE Kevin C. Johnson
DATE 11/22/99 COUNTRY OF CITIZENSHIP US
RESIDENCE 713 Camp Woods Road Villanova, PA 19085
POST OFFICE ADDRESS SAME

3. FULL NAME OF THIRD JOINT INVENTOR (IF ANY)

Brendan P. Johnson
(GIVEN NAME) (MIDDLE INITIAL OR NAME) FAMILY (OR LAST NAME)
INVENTOR'S SIGNATURE Brendan P. Johnson
DATE 11/22/99 COUNTRY OF CITIZENSHIP US
RESIDENCE 713 Camp Woods Road Villanova, PA 19085
POST OFFICE ADDRESS SAME

4. FULL NAME OF FOURTH JOINT INVENTOR (IF ANY)

William C. FELKER
(GIVEN NAME) (MIDDLE INITIAL OR NAME) FAMILY (OR LAST NAME)

INVENTOR'S SIGNATURE William C. Felker

DATE November 22, 1999 COUNTRY OF CITIZENSHIP U.S.

RESIDENCE 1388 Simpson Ferry Road, New Cumberland, PA 17070

POST OFFICE ADDRESS _____

5. FULL NAME OF FIFTH JOINT INVENTOR (IF ANY)

(GIVEN NAME) (MIDDLE INITIAL OR NAME) FAMILY (OR LAST NAME)

INVENTOR'S SIGNATURE _____

DATE _____ COUNTRY OF CITIZENSHIP _____

RESIDENCE _____

POST OFFICE ADDRESS _____

**ADDED PAGES TO COMBINED DECLARATION
AND POWER OF ATTORNEY**

- ☐ Signature for subsequent joint inventors. Number of pages added: __
- ☐ Signature by administrator(trix), executor(trix) or legal representative for deceased or incapacitated inventor. Number of pages added: __
- ☐ Signature for inventor who refuses to sign or cannot be reached by person authorized under 37 CFR § 1.47. Number of pages added: __
- ☐ Added page for signature by one joint inventor on behalf of deceased inventor(s) where legal representative cannot be appointed in time. (37 CFR § 1.47)
- ☐ Added pages to combined declaration and power of attorney for divisional, continuation, or continuation-in-part (C-I-P) application.
Number of pages added: __
- ☐ Authorization of practitioner(s) to accept and follow instructions from representative.

☒ This Declaration ends with this page.

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